

# MANUFACTURERS' RECORD.

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BALTIMORE, FEBRUARY 26, 1897.

### Possibilities in Cotton.

The February number of the "Southern States" magazine, of Baltimore, contains two conspicuously able and noteworthy articles from the authoritative pen of Dr. Charles W. Dabney, Jr., Assistant Secretary of Agriculture. They deal with practical questions, the utilization of cottonseed and the prospects and possibilities of the crop for the next twenty-five years.

The extent to which the seed might be used is manifest in the statement, based upon scientific calculations, that, properly handled, the seed of the crop of 1896 ought to yield in round numbers \$100,000,000, instead of \$53,000,000, which may be expected. At present the seed are used as feed, fertilizer and fuel, in addition to oil producers, and a secondary product of feed and fuel is a fertilizer. There may not be at present a sufficient number of mills and of cattle to turn all the seed into cash, but there should be an impetus to greater efforts in that direction in a consideration of the potential value of the cottonseed crop. This is reckoned at \$94,239,392, after deducting 10 per cent. for loss and seeding. The total is derived from \$41,750,000 in oil, \$3,100,000 in linters, \$36,056,765 in hulls and meal made into live weight of cattle, and \$13,332,627 in manorial value of hulls.

An increase of \$40,000,000 and more in the total value of the cotton crop without increasing the size of that crop is a possibility worth considering by the farmer.

Its importance during the next twenty-five years will become greater and greater as the demand for cotton naturally expands. This will amount to 20,000,000 bales by 1920, Dr. Dabney reckons. And he shows that the South ought to be able to produce it if the force of laborers is developed proportionally. Of the 550,000 square miles in the cotton regions, but 50 per cent. is in farms, but 20 per cent. is improved, and only 5 per cent. in cotton. There is room, therefore, for expansion to meet the demand without trenching upon the land that ought to make each

planter practically independent of his cotton for a living, and without reference to the economy arising from a steady advance in the improvements in methods of cultivation.

In the last 100 years the total production of cotton was worth \$15,000,000,000, exceeded only by that of corn. Its value in the next century will reach figures that hardly may be realized.

These two articles are comprehensive in treatment, and form a storehouse of information of practical value to the Southern agriculturist and the student of Southern conditions. The facts are startling, the suggestions novel, and their publication will attract wide attention.

Supplementary to Dr. Dabney's articles, and appealing with the logic of accurate figures to the Western farmers casting about for a competency, is an article on "Cotton-Growing vs. Wheat-Growing." In it are compared the costs of raising an acre of wheat and one of cotton, and the results of the sales of the products in 1894, a minimum year for both wheat and cotton. The conclusions derived from official reports of the Department of Agriculture are most suggestive. The average loss per acre on wheat was \$5.53, and in Kansas, where it was grown cheaper than any other place in the country, \$2.88. On the other hand, the average profit per acre in cotton in the worst years we have had was \$2.48, and in 1895 it was \$5.23. This particular advantage, when considered in connection with the cheaper land, the cheaper labor and the more genial climate, ought to leave no doubt in the Westerner's mind about the place where his profit lieth.

### Questioning Great Britain's Motives.

A well-informed student of international affairs, who has closely studied the proposed treaty of arbitration with Great Britain, in a letter to the Manufacturers' Record, says:

I cannot avoid expressing surprise at the information printed in the New York Sun of February 13, showing that while a treaty for general arbitration is under discussion between this country and Great Britain, she is negotiating through an agent, Mr. Solomon Joseph, for imposing upon Peru a system in all respects analogous to that now existing in Egypt. To say the least, this comports ill with her protestations of amity and friendship as expressed in the treaty. It is now announced that Mr. Joseph has been so far successful in his mission as to have secured the assent of the Peruvian executive to the scheme, which will now go before the Congress in that country. We also understand that the extension of this system to Argentina and Uruguay is in contemplation by Great Britain if the plan succeeds with Peru. At the same time, attention has been called to the fact that England has increased the strength of her North American and West Indian squadron beyond anything it has ever attained before, and within six weeks she has put in commission two of her first-class battleships, the Hotspur and the Monarch, which have been detailed for service on the Bermuda station, thus making her naval demonstration in our waters still more impressive. These things look strange, and in view of the pending arbitration treaty, some explanation of them should be given.

### The Lexow Habit

During the last few weeks much time has been occupied in an examination by a committee of the New York assembly of the character and methods of certain aggregations of capital known as trusts. Careful study of the committee's proceedings fails to reveal any purpose in its investigation beyond an indulgence in the Lexow habit. The Lexow habit may be defined as a useless display of legislative impertinence and chicanery. It is manifested in various ways, more or less dangerous and demoralizing for all persons concerned, particularly those addicted to it. In its present phase, however, it does not seem to be an unmitigated evil. It may not have developed anything of strictly news value, but it has emphasized certain principles and facts that should be soberly considered by innocents who are inclined to adopt it.

It has demonstrated beyond peradventure of a doubt that as society is now constituted the greatest profits from an industrial investment are based primarily upon the exercise of the strictest practical economy in production and a thorough knowledge of the limitations of the market. This is a fact, whether the product is sugar, a necessity, or tobacco, a luxury; whether the producer or trader is a corporation, a firm or an individual. If the Sugar Trust gains 12 or 15 per cent., the Arbuckles gain 50 per cent., and proceeds of the Wanamakers or the Macys are much more proportionately than those of individuals who attempt to compete in single lines with the great department stores. At the same time the public is able to buy better food and better goods at lower rates than ever before, while the total number of productive employees and their wages are not necessarily reduced. To be sure, a local interest may be destroyed and its dependent employees may be compelled to seek other fields, but that is the result of a law that legislation is not able to change, a law which declares that if more dwellings are built than there are occupants for them some of them must remain vacant, and that a city having deep-water connections with the world and railroad communications with the interior of a country will have greater commercial importance than a town dependent upon ox-carts and pungles for transportation facilities.

Even Chairman Lexow does not dare to confess ignorance of this law. In discussing the investigation, he said: "The difficulty lies mainly in the fact that combinations, as such, are not necessarily fraught with evil nor against public policy; that they, moreover, seem to be the normal and natural evolution of commercial life growing out of the necessities of concentrated populations and the increasing tendency toward a lower scale of prices. Just as our villages have become towns, our towns cities, and our cities large aggregations of people, so our shops have become huge stores,

our office buildings have climbed higher and higher into the skies, and our industrial pursuits have become concentrated in hands of ever increasing combinations."

But he believed that there were possible abuses that he called trusts. "A trust," said he, "seeks to monopolize the sources of supply of a given product necessary to the convenience of man, and arbitrarily fixes the price after annihilating competition by sheer power of concentrated wealth. It disposes of its opponent, not by free and fair competition to secure a certain market, but to destroy all competition and secure the unchallenged control of the whole market. The objective point is to obtain a monopoly both of the product and the medium of its disposal, of the market in which it is sold."

Granted that this is a fair definition of a trust, does it thereby imply abuse? Competition has as its immediate aim, whatever may be its methods, the annihilation of competition. Combination means increased resources and a cessation of wasteful expenditure, as the money formerly spent by competitors in trying to outwit each other is diverted into wealth-increasing channels. The combination may represent a greater capitalization than the total investments of the competitors, but this is no time to deprecate an enlargement of capital for productive enterprises. Then, too, if the abeyance of competition and control of the market result in cheaper articles, as the trusts under consideration have apparently given, is there not reason for the belief that competition may become the death of trade? Competition is a kind of commercial aconite. Applied judiciously at the right time, it is a vigorous life-saver; when it is not needed, or when too much of it is given, it is a deadly poison. But there is a tendency, not confined to trusts, however, for a monopoly to abuse its opportunities. This condition contains its own corrective. In the case of the steel pool the elements of disintegration were the unwillingness of some of the poolers to be longer restricted in individual action and the advantage gained by one of the pool from an independent deal. But in all cases there is the certainty, almost without qualification, that the success of one combination will be the mainspring for the formation of another to compete with it, and so adjustment will be continually and regularly made.

There is a strong suspicion, though, that the Lexow habit may be a species of humbug. But, unfortunately, that combination of knavery and foolhardiness must be taken seriously. The seriousness of the situation is realized when are recalled the words of Lexow that combinations of capital "illustrate the supreme effort of the Empire State to maintain her commercial supremacy, and they typify the mighty force of industry and intelligence that are at work developing our resources and upbuilding our power, our influence and our prosperity." If Lexow believes that, he ought to know that the course

he is pursuing is detrimental to the best interests of his State. If he did not know before he began the investigation, he has no longer reason for ignorance. At the conclusion of his testimony, one of the witnesses, John E. Searles, condensed into a few words truths that should warn Lexow and his imitators. He said:

All the efforts that are made to hurt capital are against the interest of labor. Every movement made that has a tendency to destroy confidence in capital is against labor. There are hundreds of millions of dollars in New York city waiting to go into industrial investments that are kept from such investments by frequent and continued attacks on capital already invested. If we had less legislation we would be better off. I think that if laws were made for the purpose of keeping capital in the State rather than driving it out, New York would increase largely in her manufacturing industries and employment for labor would increase correspondingly. The whole tendency of things has been to discourage, to drive away capital. So long as investigations like this are fomented and capital is endangered and is put and kept in a defensive position, I believe that there can be no more investment, and the State will not be able to increase its industries. So labor will not receive increased employment. There is a law, let me tell you, sir, higher than the State of New York. That is the law of supply and demand. No trust has ever been yet organized, no corporation has ever been created, and there never has been any combination of capital of any sort big enough to violate that law. As I told you, hundreds of millions of dollars are in New York waiting to be put into industrial pursuits, but if all the hundreds of millions were put in one industry the violation of the law of supply and demand would bring about the destruction of all the wealth. The consumer is protected by the operation of this law, just as the combination of capital is held in check by it.

That Lexow has been able to draw such clear-cut statements of principles from one who knows whereof he speaks is an indication that his labor has not been entirely in vain. Mr. Searles has warned not only New York's assembly, but the legislature of every State of the danger that children incur in handling sharp-edged tools. He has conferred a distinct benefit upon his countrymen, especially those who never would be able to organize a brain trust.

Nevertheless, the incident was an accident, and leaves the Lexow habit as virulent as ever. But it is not incurable. In fact, its devotees may be restored to perfect health by observing the law enunciated by the investigation, that happiness for the trader, the manufacturer and the legislator is largely dependent upon strict and close attention to one's own business.

The State that offers the most liberal encouragement to capital will afford the most profitable employment to the laboring classes. Where legislation, enacted or threatened, is inimical to capital, the laborers must necessarily suffer. Will the South heed the lesson?

The fate of the Texas anti-trust law ought to have its effect upon other parts of the South. It has just been declared unconstitutional by Judge Charles Swain in the United States Court for the northern district of Texas. His judicial reasons, parallel with common sense, are that the right of business contract is not capable of being restrained by legislative action; that a man is free to ask for his wares or his services whatever prices he is able to get and others are willing to pay; that under the act two village grocers doing business at a loss to both could not form a partnership in order to save themselves from bankruptcy, and that the vice of the act is that it attempts to prevent too much.

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### Some Facts for the South's Consideration.

Mr. Chas. J. Glidden, of Lowell, Mass., president of the Southwestern Telegraph & Telephone Co., which has an extensive system in Texas and adjacent States, is a firm believer in the Southwest, but insists that the great resources and advantages of that section should be much more extensively advertised. In a recent interview with a Dallas News reporter, Mr. Glidden said:

I have been coming to Texas now for fourteen years, and there have been marvelous changes in my time. No State in the Union has made more rapid progress, and no man can predict the imperial greatness of the Texas of twenty years hence. Texas as it is should be advertised, and the opportunities and possibilities found here should be heralded broadcast. I well remember when our company was organized it was necessary to raise money by the sale of bonds in Europe. We sent a committee across the water, and the prevailing opinions of Texas customs and Texas resources must have been obtained from Buffalo Bill's yellow-covered literature. We were compelled to take over with us a large collection of photographs of life scenes in Texas, massive buildings, etc. As a matter of course there has been a great change for the better in the years that have intervened, but Texas resources should be advertised in the Eastern country and abroad as well. Representatives of Eastern syndicates and the heavy capitalists of that country should be invited to come to Texas and be shown the growing cities, the fertile farms, the great mercantile and manufacturing enterprises. The sight would open their eyes.

In the same line of thought ex-Governor R. B. Sherman, of Iowa, in an interview in Raleigh, N. C., said:

I like North Carolina. It is a good State, a very fine State. Its soil seems to be good and its natural resources are certainly wonderful. Since I have been in her borders I have seen some magnificent farms. I think, however, if you will allow a stranger to make a suggestion, that your State authorities have made a mistake in not doing more to properly advertise your State. The outside world has no idea of the grand State you have here. You should send out more literature and advertising matter and be represented in all the great expositions.

As to your cities, Raleigh and Asheville, the only two I have stopped in, I am most agreeably disappointed. They are beautiful cities, well built, orderly and much larger than I had been led to believe. Raleigh especially seems to be a most pleasant city. I have been struck with the number of fine residences both here and in Asheville.

And following the same subject, the Fredericksburg Free Lance adds:

Our Virginia people are always slow to wake up to a realization of the importance—the incalculable importance—of advertising to the world their industrial resources and commercial advantages.

The News, of Galveston, Texas, in a recent issue gives some striking facts in this connection that are worthy of thoughtful consideration on the part of the railroads and of the people of the South:

Twice within the past ten days the News has mentioned the necessity of advertising Galveston. \* \* \* The attention of the railroads running to Galveston is directed to the annual report of the Lehigh Valley Railroad. This road shows that, notwithstanding the general depression, the number of passengers carried per mile was 8,000,000 during 1896 in excess of the previous year. Such a gain in such times indicates that the road has made increased exertions to develop travel, both by increasing its facilities and attractions and by making them known, and for the latter work the general passenger department, under the energetic charge of Mr. Charles S. Lee, deserves great credit. Mr. Lee went to the Lehigh Valley a few years ago from the Colorado Midland, then not included in the Atchison system. He showed his energy and push with that mountain road, and by judicious advertising made it one of the most popular scenic lines for tourists in the West. In regard to the work of this Western-bred railway man in his Eastern field, the Wilkesbarre (Pa.) Newsdealer says: "When Mr. Lee began work they did not believe in advertising. They did not think you could make people

travel unless they had business. They were like unto the business man who thinks money spent in advertising is so much thrown away, who thinks people will not buy unless they must. The exploit of Mr. Lee in thus increasing travel on a railroad by advertising is the most remarkable in the history of advertising, and it is a lesson that should not be lost sight of by any business man. In the dullest year of the last quarter of a century the Lehigh Valley advertised more than ever, and its passenger receipts were greater than ever. While all other railroads reduced their advertising, the Valley increased it, and the experiment paid beyond the hopes of the projectors."

Neither the people of the South, as a whole, nor the railroads, with a few exceptions, appreciate what can be accomplished by judicious, liberal advertising. The failure of the Southern roads to advertise on a broad and comprehensive scale is not wholly due to the officers, but to the fact that the owners do not impress upon the directors that money must be liberally provided for proper advertising. In some cases there are officers of such small calibre that they know nothing about advertising beyond trying to trade passes for space in local papers. The work of some of these men would furnish interesting reading but for the fact that it is hardly worth the space. That the steady advancement of the South and the broader development of its railroads will soon force these small-calibre men out of the way is one gratifying feature of the situation. In other cases the officials are hampered by small appropriations for advertising purposes, and are compelled to make a little money go as far as possible.

To do this work in the right way would require an expert as skilled in this line as are the advertising experts to whom the great dry-goods stores pay \$8000 or \$10,000 a year salary. The passenger department of any Southern railway would doubtless shock the whole nervous system of the directors by making such a proposition as this. The officials of the Southern railways are not wholly to blame that this is not done. The fault lies deeper than that. It is to be found in the failure of the owners of Southern railroads and of the Southern people themselves to appreciate what can be done by advertising of the right kind. With such an appreciation as this, the railroad officials would be stimulated to greater efforts, and be backed up by public sentiment and aided by vigorous work by individuals and municipal and State action.

### To Write Up Atlanta.

Messrs. A. B. Rawlett and L. S. Foote, publishers of The Industrial South, a periodical issued under the direction of the Seaboard Air Line, are here to write up Atlanta and adjacent territory for that road. The forthcoming number of this periodical will be devoted to the towns and the country along the route from here to Portsmouth.

These gentlemen will be in Atlanta several days gathering information for this purpose. The issue which they are about to publish will contain sixty-two pages, handsomely illustrated, and it is proposed to circulate 100,000 copies.—Atlanta Constitution.

If this "Industrial South," which we believe exists so far in name only, is to be "issued under the direction of the Seaboard Air Line," as stated in all of the notices published, and if the Seaboard is guaranteeing to issue 100,000 copies, the Manufacturers' Record can only commend the energy of the Seaboard management; but unless this issue is under the control of the Seaboard, and unless the Seaboard is directly responsible in seeing that 100,000 copies are issued, it is permitting a false impression to be made

that is an injustice to the people who advertise in that paper on the supposition that it is controlled by the Seaboard, and that the Seaboard is responsible for this 100,000 circulation. Is the Seaboard backing this "100,000-copy" scheme, or is its good name being used without authority to carry that impression?

### Education in Doing.

In an inspiring address before the general assembly of Alabama Hon. J. L. M. Curry called attention to facts that should be carefully considered by everybody working for the well-being of the South. Representing, as Dr. Curry does, the two great Peabody and Slater funds, that have done so much for education in the South in their particular fields, with a mind full of his subject, profoundly convinced of the necessity of universal education, his speeches are always of practical value, and though colored by particular occasion or environments, have usually far-reaching application. This is true of his remarks at Montgomery. Not only Alabama, but also many of her sister States, need for the advancement of public instruction upon right lines more money, to be obtained by general and local taxation, supervision of schools divorced from politics and any other conflicting influence, and more efficient training and scholarship in teachers.

But when perfection shall have been attained in all these respects an essential will still be lacking unless a marked change of policy occurs in the meantime. Unfortunately, Dr. Curry's time limitations would permit him to do little more than allude to this point, the importance of manual or technical training, but there was wisdom and caution in his words, "Heretofore we have too much divorced doing from knowing, and exaggerated the relative value of the latter as compared with the former." To be sure some advance has been made in this direction in recent years, but there is apparently still a necessity not only for greater facilities for technical education, but also for more hearty encouragement of young men to turn their energies into industrial and mechanical pursuits rather than the professions or mercantile life. Neither of these drawbacks should exist. The South has done wonders, industrially, in such directions as building, manning and operating cotton mills, but mining, railroading and manufacturing, and even the scientific diversification of farming, are creating every day opportunities for remuneration and advancement for young men whose eyes and hands have been trained, as well as their brains.

Every Southern State has one institution or more in which technical science is embraced in the curriculum, and they are doing an excellent work on a collegiate basis generally. What is needed to infuse more vigor into the whole is greater attention to the subject in the lower grades of the public schools, so that natural aptitude may be developed before it has been cramped and choked by lack of opportunity or by forced diversion into other channels, and an institution of the highest grade to complete the equipment.

The Knoxville (Tenn.) Commercial Club has elected the following officers: President, J. S. Shields; first vice-president, E. E. McMillan; second vice-president, P. J. Briscoe, Sr.

**SURPRISED THE CONGRESSMEN.**

**Southern Potentiality Revealed to Members of the Committee on Rivers and Harbors.**

[Special Cor. Manufacturers' Record.]

Washington, D. C., February 24.

Members of the House committee on rivers and harbors, particularly the Northern ones, were deeply impressed by what they saw in the South during their recent trip through that section. They found much to interest them at Mobile, New Orleans, Galveston, Houston and Birmingham with particular reference to improvements already made and those contemplated, and even the rapid survey of a field new to several of them was a revelation. The immediate result of the visit was the prompt passage, in the House of Representatives, of a bill appropriating \$250,000 to close the crevasse at the Pass-a-Loutre, at the mouth of the Mississippi.

But more far-reaching results are to be expected, judging from the expressions of those persons who composed the party. Accompanying the committee was Representative-elect D. S. Alexander, of Buffalo, N. Y. His district adjoins that of Chairman W. B. Hooker, his close friend for many years. At Mr. Hooker's invitation he was a member of the party. Mr. Alexander was auditor of the State Department under Garfield and Arthur, and was United States Attorney for the northern district of New York under President Harrison. He had not been in the South since, as a boy of sixteen years, he reached Vicksburg as a private in the Union army, and his observations are valuable and suggestive.

"Were you disappointed in the progress of the South?" he was asked.

"On the contrary," he replied, "I was not only greatly surprised, but very much gratified at the progress being made, especially along the line of manufactures and commerce. The first thing to attract my attention was the great number of cotton mills being erected all through Georgia, Alabama and North Carolina. Wherever we stopped there was present always one or more of these factories, built substantially of brick, two, three and in some cases four stories high, run by steam and working day and night, including holidays, with the exception of Sunday. I found weavers from all the New England cotton-factory towns, including two or three from Lewiston, Me. Some of these were simply operatives, and others seemed to be foremen.

"The laborers in the mills are uniformly white people, with the exception of stokers, mule drivers, handlers of freight and those engaged in the more menial occupations outside the factory. The white labor I learned came for the most part from the mountains, and the mill operators find that they can get all the labor of this kind which they need, and that it ranks as first-class in every respect. An owner in five different mills at as many different points told me that the white girls from the mountains were as clever and quick to learn as any he had ever employed in the North, while they come from the best families of that class of population. In almost every instance these laborers are pure Anglo-Saxons.

"The pay of these people averages about seventy-five cents a day, thus enabling the mill-owners of the South not only to undersell the manufacturers in the North, but successfully to compete with European labor. Most of the goods produced now are of the coarser grades, but one factory-owner told me that his

mills were already making print goods that easily competed with Fall River products in quality. He added that these people could easily make the finest grades, and that within a few years, as soon as the proper machinery was put in, all the best grades could be manufactured in the South at an expense much less than in the North.

"I made careful inquiry, said Mr. Alexander, as to the proportion of Northern and Southern capital invested in these mills, and learned that it was the custom of Southern men of means in the various localities where it was desired to erect cotton mills to interest all the Southern capital that they could and then go North for whatever more was needed. The inception of the movements seemed to lie with the Southern people themselves. That is to say, a few energetic men in a small town believe that a cotton mill will be helpful to the upbuilding of their place. A stock company is organized for this purpose, as much stock is taken as they can pay for, and then appeal is made to Northern capital.

"At Birmingham the committee was taken in charge by a score or more of enterprising citizens, and we visited many of the blast furnaces, iron and coal mines and limestone quarries. We visited one plant, the largest in the United States excepting the one recently put up by Carnegie at Pittsburg. Of course, it is well known that at Birmingham the coal, iron and limestone lie very closely together.

"The operatives in these mines and blast furnaces are largely colored, about one-half of the laborers in the coal mines being convicts.

"These convicts are not employed because they are cheap, but because they can be relied upon with absolute certainty, while the free colored help never work on Saturday or upon any holiday, and if the weather is not to their taste they are inclined to remain indoors. For this reason, so the superintendent of one of the mines informed me, the work would frequently get behind if they did not have on hand a supply of convict labor, which keeps it going whether the free colored help is present or not.

"The mine-owners contract to pay the State a certain sum for the labor of the convicts. When first put to work they perform unskilled labor, such as loading and unloading cars, driving mules, etc. After about six months they are put to work mining the coal, and each one is given a certain number of tons to mine each day. When they have become more skilled in this work the amount of task required of them is increased, but it is the intention to require only an amount of work which can be turned off in about eight hours. After that they can, if they wish, stop work or continue operations two or three hours longer, for which they are paid extra. This extra pay goes to the convicts themselves. The amount of money thus earned frequently runs up in the course of a three or four years' sentence to \$200, \$300 and \$400. In one case I was told, which, however, was exceptional, a convict had saved \$500 at the end of a four years' sentence, which was turned over to him in bulk when he was released.

"I was told that at Birmingham iron was made for \$1.50 to \$2 a ton cheaper than at Pittsburg, not so much because labor is any cheaper, but rather because of the close proximity of the iron, coal and limestone.

"Up to the present time no steel has been made at Birmingham, but they are now getting ready to make it. The pig iron is worked up at Birmingham into all sorts of products, very large con-

tracts being taken for the manufacture of water pipes. During the past six months, I was told, more than 100,000 tons of pig iron had been shipped by way of Mobile and other Southern ports to European countries. If Birmingham had a canal dug out so that barges could go to the river and thence to tidewater at Mobile, a reduction of \$1 a ton, it was claimed, could be made in freight alone."

In reply to a question about the lumber interests, Mr. Alexander said:

"On almost every river we crossed were seen large rafts of timber, making their way to tidewater. At Mobile scores of ships belonging to various nations, especially to Norway, were waiting to receive cargoes of timber and lumber. It seemed to be a great industry even in Florida, where Michigan lumbermen are now engaged in taking out the cypress wherever it is found. I went down the Ochlawaha river, which, as you know, traverses a cypress swamp for 100 miles and more, being nothing but a little stream, rarely ever more than fifty to seventy-five feet wide, full of alligators, water moccasons and all the reptilia of Florida, and we were constantly stopped by the presence of log rafts of cypress lumber. At one point, the captain of the steamer told me, 600 men were employed in getting out this timber."

Mr. Alexander was deeply impressed with the Gulf harbors, and on this point said:

"We visited the jetties at Mobile, at the mouth of the Mississippi, at Sabine Pass and at Galveston. No one can fully appreciate the wonderful work of Mr. Eads until he sees how New Orleans has been converted in the past fifteen years from an ordinary river port into a great seaport. The jetties placed in the South Pass have given from twenty to thirty-one feet of water, through which the largest steamships can pass with perfect safety bearing a full cargo.

"Of course, it is the great regret of every citizen of the present city that the Southwest Pass was not used instead of the South Pass. Had that been done they would now have as fine an entrance to their great river as the most ambitious vessel-owner could ask for.

"At Sabine Pass and Galveston these jetties have been built right out into the Gulf, and the simple action of the water has scoured out wide and safe channels sufficient for the fleets of the world.

"This work of Mr. Eads will in the end revolutionize the whole Southwest, and must attract to the Gulf ports the products of the great States lying west of the Mississippi. A line of railroad is now being built from Kansas City to Port Arthur, paralleling the Mississippi river at a distance of 300 miles west of it, over which the products of Texas, Western Arkansas, Kansas and the country north of it can be brought to the water by a railroad haul of less than 650 miles instead of 1200 to 1400 to the Atlantic coast. These Gulf ports, now that they are open to the great iron ships, are bound to become ugly competitors of the Atlantic ports."

"Did you, in connection with commerce and manufactures, discuss the tariff with Southerners?"

"Yes, and I was much surprised and greatly pleased, in talking with several congressmen-elect, to learn that in many parts of the South the views of the Southern people upon the tariff are rapidly changing. They speak of being in favor of a tariff for revenue, with incidental protection, but at the same time they make no secret of the fact that they favor duties on competing raw materials, as well as on manufactured articles

which compete with those produced in the South. They admitted that they could not expect to receive a full share of whatever benefits are to be derived from a protective policy unless they did their share toward establishing and maintaining it. From what I could learn, I believe that there will be more than a dozen Southern democrats in the next House who will be found supporting any reasonable tariff bill that may be brought forward in the next Congress."

Since the return of the committee to Washington Mr. Alexander has made a pleasure trip to Florida, and upon invitation spent a day with Senator and Mrs. Platt at the latter's orange grove on Lake Astatula. This plantation is situated on what is said to be the highest land in Florida, and is regarded as in the centre of the best orange-producing soil in the State. Mrs. Platt, said Mr. Alexander, bought it in 1885, and until the freeze of 1895 it was considered one of the finest groves in the State.

"I met the Senator and his wife by accident at Palm Beach, and was invited to accompany them to their Florida home," continued Mr. Alexander. "The trip gave me an opportunity of seeing a part of Florida seldom visited by tourists, but which all unite in saying is the prettiest and most healthful part of the peninsula. Lake Astatula, or Lake Harris, as it is now called, is fifteen miles long and from two to five miles wide, and in many respects resembles a Northern lake, although the bellowing of the alligators is a continual reminder that it belongs to the Florida waters."

Representative Charles A. Towne, of Duluth, Minn., is a member of the committee full of enthusiasm over the commercial, industrial and agricultural possibilities of the South. When approached by a representative of the Manufacturers' Record he was at first disinclined to talk off-hand, as very naturally he preferred to devote sometime to the formulation of his views, in order that he might do full justice to a subject which he regards as of great importance.

"A majority of the members of the party," said Mr. Towne, however, "had never made the trip before, and we were amazed at the wealth of natural riches in the South. They have only begun to be exploited. There is Texas, for instance. Anything that can be grown in the world can be grown there. Beaumont and Orange have developed wonderfully as lumber centres, and Texas City, not far from Galveston, has already assumed good proportions as an exporter of cotton. The Sabine region will be of great importance as soon as the necessary improvements in the waterway have been made, for it will have railroad connection with the interior of the country through a rich valley. The work done by the government at Mobile has given that city a wonderful impetus, and it illustrates what may be done with the Gulf ports. Everywhere we noted signs of progress and indications that energy and enterprise were being exerted by settlers coming in. Birmingham is a great place, and what has already been done on the Tombigbee and Black Warrior rivers shows what may be expected when there is direct water connection between Birmingham and the Gulf."

Representative Walter Reeves, of Illinois, seemed to have been particularly impressed by Birmingham and its vicinity. "My prophecy is," said he, "that Birmingham is to be a great industrial centre of the country. It has rich resources of iron, coal and lime necessary

in iron-making, and it has the additional advantage of being so near salt water at Mobile. And that city has a pre-eminently rich country tributary to it. In fact, the whole of the country through which we passed is full of promise. That is particularly the case with the portion of Texas that I saw. Houston has many natural advantages, and is the centre of a rich and fertile agricultural region. My trip to the mouth of the Mississippi convinced me that nothing should be allowed to block it. The commerce of the whole West demands the maintenance of its navigation."

Representative Binger Hermann, of Oregon, said:

"Having made a special study of the various waterways which we included within our tour of observation, I expected to see much of interest, but I must confess that what was actually observed far exceeded anything of which I had previously read. I refer especially to the substantial character of the governmental improvements upon the various harbors from the mouth of the Mississippi westward and including Galveston. I become convinced that the great problem which now confronts the Southern people is that of cheaper transportation. The exports of the South are largely heavy and bulky in character, such especially as lumber, coal, cotton, marble and building rock, but the high rates upon the railways impose a very severe tax upon the producer and shipper as well. The improvement at Galveston has already made itself a great factor in cheaper transportation as to the productions inland, and carried to that waterway by the various lines of railways concentrating at Galveston.

"Referring more specially to that great waterway of Sabine lake, and thence through Sabine Pass to the Gulf, it is not difficult to predict, upon a personal examination, what must be the result immediately to ensue upon the improvements of these waterways in the cheapening of transportation. No other line to the Gulf coast presents so short and direct a route as that from Kansas City to the Gulf at Port Arthur and Sabine Pass. Sabine river, which empties into Sabine lake, is of itself navigable for 600 miles, and for quite a distance for boats of good draught. The Neches river, which also empties into the same lake, is navigable, we are informed, for 200 miles. The great difficulty at the present time is in the shallow depth of Sabine lake itself. The vast lumber interests of Texas and Louisiana tributary to the waterways mentioned will become at once of great value when deeper water is obtained through Sabine Pass and into the Gulf. Seventeen vessels were observed by us at Sabine Pass on our recent visit. They were all lumber carriers.

"The improvements accomplished in the lower Mississippi river within the last few years by the general government have produced most marvelous results throughout the Mississippi valley, and the benefits can be seen not only in the great city of New Orleans more than all the rest, but among the plantations. The improvements at Mobile bay have worked wonders, and when the streams which empty into that body of water are sufficiently deepened the entire productions will be accelerated with the cheaper transportation.

"In a word, permit me to say, wherever we traveled we observed evidence of the new South, and a people who seemed to be awakened from a long slumber, and everything in the way of material industries show upon their face a new brand, and moving as if with new life. As an

illustration of this last observation, the city of Houston was found to be a remarkable example of enterprise and public spirit, and with the deepening and rectifying of the Buffalo bayou, that splendid body of water which is the waterway outlet for the city of Houston to the Gulf, wonderful progress may still further be anticipated. The vast industries now in motion in and around Birmingham are also seeking waterway outlet from that city so as to reach the Gulf waters cheaper than at present by railways."

Representative Richard H. Clarke, of Mobile, A.A., expressed pretty accurately the sentiment of the Southern members of the committee when he said: "I was very agreeably surprised at the favorable impression that seemed to be made upon the committee during their visit by the evidences of progress and the possibilities brought to their attention all along the line. I think they had revealed to them conditions that they had not expected to discover."

#### WEST VIRGINIA'S RICHES.

##### Developments in Oil, Lumber and Coal in the Mountain State.

[Special Cor. Manufacturers' Record.]

Kendalia, W. Va., February 20.

As the great West Virginia oilfield pushes further toward its sister in Tennessee new territory is opened, new leases are taken up and new developments are made. We have been over quite a good deal of this little mountain State, and West Virginians are justly proud of their coal, their timber and their oil. Thrice blessed are those whose lots have fallen upon this triple alliance of wealth. In no other country in the world will you find citizens owning their own coal mine, timber and springs that never do run dry.

Chas. Y. Bendam & Bro., of Mannington, W. Va., representing the South Penn Oil Co., the operative branch of the Standard, have leased 36,000 acres of land of Col. J. Q. Dickinson and others, of Charleston, W. Va., in Elk and Cabin Creek districts in Kanawha county, and will develop it.

M. L. McCray, general superintendent of the Sunset Oil Co., of Los Angeles, Cal., is here in company with J. A. Davis, of Pim City, Cal., looking up oil territory.

Lima, Ohio, and Pittsburg people have leased 3000 acres of land on Blue creek for oil purposes from Mrs. R. J. Hill, of Kanawha county, and will begin drilling in March.

Osborne McDaniel, of Pond Gap; S. R. Hall and others of Coco have leased 2000 acres of oil land to O. D. Hill, of Kendalia, who will contract to have wells drilled.

O. P. Fairchild, of Pond Gap, has opened a four and one-half vein of coal on the north fork of Blue creek.

Col. D. Sealey, of Charleston, representing Messrs. Wheeler & Holden, of Buffalo, N. Y., will buy the railroad tie timber on 3000 acres of land on Blue creek in Kanawha county, West Virginia.

The Clay Lumber Co., of Porter, Clay county, has built seven miles of steel tram railroad up Porter's creek from the C. C. & S. R. R., and will extend the railroad two miles to the head of Spruce fork of Blue creek in Kanawha county.

David R. Hill, of Kendalia, will put in mills and cut out the white oak timber on 4000 acres of land, and will want a thirty horse-power boiler and twenty-five horse-power engine, and saw mill, cutoff saws, etc.

The Donaldson Lumber Co., of Mammoth, will extend their tram railroad five miles to a 3500-acre tract of land recently

purchased of Dr. David Ward, of Detroit, Mich.

Repettoe Bros., of Belva, contemplate buying a band saw mill. X. Y. Z.

#### PETROLEUM IN TEXAS.

##### Extent and Quality of the Oil Flowing at Corsicana.

[Special Cor. Manufacturers' Record.]

Corsicana, Texas, February 19.

The discovery of petroleum oil at this place two years ago (noted at that time in the Manufacturers' Record) has been the subject of quiet but persistent attention, and the developments, until this time kept almost a secret, are noteworthy. The high quality of the oil found was the first point of importance, and this has been fully and conclusively demonstrated by unerring scientific tests. These tests were conducted by Prof. H. H. Harrington, chemist of the agricultural experiment station at College Station, and have been officially published in Bulletin No. 35, at page 605, of the current series of bulletins issued by the United States Department of Agriculture. Professor Harrington says (after explaining the methods of the test) that the volatile matter represents about 90 per cent. of the whole, leaving only 10 per cent. of cake residuum. To further show the very superior quality of the oil commercially he makes careful comparison thereof with the celebrated Pennsylvania product and also with the finest oils of like character from foreign fields, as follows:

Crude oil from—	Specific gravity at 17° C.	Began to boil at °C.	Came over under 150° C.	Between 150° and 300° C.	Over 305° C.
Texas—Corsicana	.821	80	34.6	40	15.8
Pennsylvania	.818	82	21	38	40.7
Galicia	.824	90	26.5	47	26.5
Baku	.859	91	23	38	39
Alsace	.907	135	3	50	47
Hanover	.899	170	..	32	68

"It will be seen from this that the oil compares very favorably with Pennsylvania oil, which generally yields in practice from 60 to 75 per cent. of burning oil of first and second quality.

"The above figures, except for the Texas oil, are taken from Sadler's Industrial Organic Chemistry, page 18."

Now, as to the quantity of the oil. That the deposit is of sufficient extent to be of vast value is already apparent from the results attained by the five completed wells, covering a mile of territory and all within the city, four of which are constantly flowing. All are controlled by a single company, and the precise quantity produced is as yet not fully known by the public. Certain it is that the output of the four approximates 100 barrels per day and no doubt very greatly exceeds that amount. The finest "gusher" in the Pennsylvania regions did not flow at all until "torpedoed," and then made a yield of over 9000 barrels per day. The wells here have not yet been treated by this method. Excessive freight rates have so far prevented any extensive shipments, though 6000 gallons were recently shipped to Houston for use by a gas plant, and a satisfactory report has been received as to its use and value.

The local electric light, gas, ice and flour mill plants have already adopted it as a fuel to the total exclusion of coal, and many months of constant trial in this way has proved its success as a fuel. It is furnished to such plants for such uses at fifty cents and less per barrel. No doubt our compresses and cottonseed-oil mills will use it for fuel at the opening of another season. The cheapness of

wells render it probable that these plants will sink their own wells.

This very conservative and prosperous community is not at all disposed attempting any "boom" on account of this valuable find, but already we are pervaded by a strong confidence in a brighter future, and new men, new money and new businesses are being daily added to our commercial activities. Our wonderful hot artesian wells, our location in the heart of the cotton belt and the considerable progress in material prosperity already made gives us much better confidence in extending our standing invitation for help in building up our locality. The petroleum oil is now among our very strongest cards. JAS. L. AUTRY, President Commercial Club.

#### Industrial News from Birmingham.

[Special Cor. Manufacturers' Record.]

Birmingham, Ala., February 23.

The past week developed no feature in the iron market but the one of great steadiness as to prices. The sales are reported to be larger than for any one week to the domestic trade since last October. This announcement is a practical evidence of an improvement in affairs that must carry conviction to reasonable people. Appreciating the full significance of the announcement, it is the more regrettable that it cannot be accompanied with the assertion that large sales have been made. The completed transactions have been only moderate. The inquiry has been very fair, and in several cases for lots of 10,000 and 20,000 tons, which, at the close of the business week, were in process of negotiation, with prospects fair for successfully closing some of them. Quotations remain on basis of \$7.75 for No. 1 foundry; No. 2 soft, \$7; Nos. 3 and 4 foundry, \$6.75 and \$6.50, and gray forge, \$6.25. These prices, it is asserted, represent inside figures, and in some instances twenty-five to fifty cents higher is asked. The feeling is beyond question that a better condition of affairs is developing. That belief, coupled with increased inquiry and sales, don't encourage concessions in price. The export trade has been limited. On the one hand it is handicapped by the increasing difficulty of obtaining ocean tonnage, and on the other hand the volume of sales has been given such wide publicity by the press that the alarm of British ironmasters is manifested in the softening of prices "to keep the iron trade at home." But if the freight room was available, rates would adjust themselves to the environments, and that trade would become a fixture.

The rolling mill is operating in all departments, and preparing as rapidly as possible to break ground for the steel plant. There is nothing new of interest to be said of it, and hereafter we can only chronicle the progress in its erection.

Among the minor industries the improvement in affairs is very noticeable. The Warrior Machine Works is adding a new iron lathe to its machinery, besides other pieces necessary to a complete machine shop.

The Birmingham Boiler Works is removing its thirty horse-power boilers and replacing them with one of 100 horse-power. It has secured the contract of furnishing a 125 horse-power high-pressure boiler to the Schillinger Brewing Co., and other addenda. The Hardie-Tynes Co. reports contracts for several engines. The Birmingham Foundry & Machine Co. reports sale of one 400 horse-power Corliss engine to Louisiana, and the Smelting Works says its business the past week was better than for a long time past. The old Alabama Brewing Co. property has finally come into the possession of New Orleans parties, who will

renovate it, put in the most improved machinery and operate the plant.

In addition to these items, we can add that of the cotton-print mill, which, though "dragging its slow length along," yet has made such progress that the banner of success is being prepared to announce its advent. The management of the new railroad from Montgomery to Columbus, Miss., have completed all arrangements and complied with all formalities necessary before commencing operations, and work will begin at once. The building of this road will put \$4,000,000 in circulation, a great part of it in this section. Besides opening to the markets a fine farming and timber region, with branches it will penetrate the Warrior and Cahaba coalfields and be an important factor in their development. Add to the money to be expended by the railroad that unknown but always large amount that follows development of a newly opened section of country, and it only argues that times must grow better where this money is expended. On this question of better times ahead of us the evidence is continuously cumulative.

J. M. K.

#### An Arkansas Board of Trade.

The business men of Arkansas have formed a State Board of Trade, with George Sengel, of Fort Smith, president; H. L. Remmel, vice-president; A. Hamborg, secretary, and George G. Harkness, treasurer. At the gathering which resulted in the formation of the Board of Trade, resolutions were adopted favoring better roads for the State, the publishing of maps and manuscripts relative to the geological resources of Arkansas, and against the manufacture of goods by convict labor which may compete with home industries.

#### Alabama Now Leads.

O. W. Clapp & Co., brokers, of New York, in their weekly market letter say:

"It now appears as if we were 'sending coals to Newcastle,' and selling Europe better iron at one-third the price, thus placing Glasgow in the rear as a centre of iron shipbuilding and behind the world in the building of iron bridges, steel buildings and iron structures generally.

"It is reported the total capacity of American mills that make steel rails is 3,000,000 tons per annum. Apparently, Alabama now leads in cheapening the price, improving the quality and distributing the product.

"Southern furnaces have improved methods, and are able to ship more iron abroad if ocean freight room had improved in proportion to furnace improvements."

#### Central of Georgia Terminals.

The Central of Georgia Railway Co. is now engaged in an important improvement at Savannah, which will give it additional terminal facilities for its export and general steamship business. A new slip is now being completed, 800 feet long and 200 feet wide, at the end of the wharves of the Ocean Steamship Co., which is the water connection of the railroad system. This slip will be large enough to accommodate a number of first-class ocean steamships, and will have at least nineteen feet depth of water. A swamp of 300 acres adjacent to the present docks is being filled in, and will be used for railroad sidings, lumber storage and terminal sheds, it is reported. It is understood that electricity will be used largely for discharging and loading cargoes, and that in all, the improvements will cost the railroad company and the Ocean Steamship Co. about \$150,000. The new wharves will give the companies an additional water frontage of about 1600 feet.

## RAILROAD NEWS.

[A complete record of all new railroad building in the South will be found in the Construction Department.]

#### Georgia & Alabama Branch.

The Georgia & Alabama Company has begun work on the construction of its branch of the Fitzgerald division in Southern Georgia, which will open up an extensive timber and naval stores district. President John S. Williams, in a letter to the Manufacturers' Record, states the line will be about ten miles in length, and that the road will be completed between Fitzgerald and Ocilla about July 1. It is to be called the Fitzgerald & Southern Railroad.

#### Fast Freight Service.

The freight service over the Atlantic Coast Line to Southern points is attracting considerable attention on account of the fast time made. Shipments are shown to have been carried through repeatedly from the North to Atlanta, Macon and Augusta, Ga., and Columbia and Charleston, S. C., in two and one-half days; to Mobile in four and one-half days; Montgomery, three and one-half days; Wilmington, N. C., two days; Fayetteville, one and one-half days, etc. These performances were, it is stated, done in the regular course of business, and were not special runs to make records.

#### Want a Railroad.

The people of St. Andrews Bay, Fla., are agitating the question of a railroad line between that town and Chipley. St. Andrews Bay is located on the west coast of the State, and on a harbor which is fourteen feet in depth, minimum, at mean tide. In a letter to the Manufacturers' Record, Editor W. A. Emmons, of the St. Andrews Buoy, states that a railroad such as is proposed would traverse valuable tracts of pine timber, and would also obtain considerable freight from the fisheries in St. Andrews Bay and adjacent waters. The people are willing to aid such an enterprise by land grants and labor.

#### Rates for Exhibits at Nashville.

The several railroads entering Nashville have made the following agreement relative to the transportation of exhibits to the Tennessee Centennial Exposition: They will transport exhibits, live-stock excepted, for exhibition at the exposition and grant free return of them. Freight charges to Nashville and terminal charges must be prepaid. State exhibits in the territory of the Southeastern Mississippi Valley Freight Rate Committee and the Southern States Freight Association will be carried free to and from Nashville. These two associations will also carry and return free exhibits for the Woman's Building and for the Negro Building.

#### A Rumor Denied.

A rumor has been current in the Southern and other newspapers that the Southern Railway Co. was considering plans to replace its colored firemen and other employees in train service with white men, the reason given being that a civil-service system was to be instituted which would tend to replace colored with white employees. Vice-President Frank S. Gannon, in a letter to the Manufacturers' Record, disposes of the rumor as follows:

"Replying to your favor inquiring whether this company proposes to substitute white firemen and other employees in its train service for colored hands, would state that the question has received no

especial attention, and there is no intention to make any such change."

#### Another Sabine Pass Scheme.

In a letter to the Manufacturers' Record, Messrs. Duncan & Lord, of Waco, Texas, who are promoting the proposed railroad line from Waco to Headsville, state that it is to be a part of a system to terminate at Sabine Pass. The road would be about 250 miles long, and the projectors claim that donations of townsites, also cash bonuses and right of way, to a large extent have been secured. The line will traverse the counties of McClen- nen, Limestone, Robertson, Leon, Madison, Walker, San Jacinto, Hardin and Jefferson. The right of way is through the coalbeds located about forty-five miles southeast of Waco, which are estimated to have an average thickness of seven feet. Messrs. Duncan & Lord state they have secured leases for ninety-nine years for these beds. Besides coal, kaolin, iron ore of a fine grade and other minerals lie along the route. The line from Central Texas to a point sixty miles from Beaumont, traverses an agricultural section, while tracts of timber land are also on the route. It is stated that construction work may be begun at an early date.

#### Mobile & Ohio Extension.

The stockholders of the Mobile & Ohio have formally ratified the decision of the board of directors to construct the proposed line between Montgomery and Columbus, Miss.; also branches to the Blocton and Warrior coalfields. Surveys are now being completed for the work, which, it is understood, is to begin within a few weeks.

An issue of \$4,000,000 in 5 per cent. bonds to build the lines was also ratified at the meeting. These bonds are to be placed by a syndicate composed of the Central Trust Co. and Hallgarten & Co., of New York. Nearly 50,000 shares of the stock in the road were represented at the meeting out of a total of 53,000 shares. The new line will connect with the main line of the Mobile & Ohio at Columbus. It is understood that J. W. Woolfolk, of Montgomery, will be general contractor for the work.

The Mobile & Ohio has elected the following directors: J. C. Clarke, E. L. Russel, J. H. Masson, A. Iselin, Jr., A. H. Stevens, J. S. Rogers, F. O. Tappan, H. B. Plant, T. E. Jevons, J. H. Fay, C. Cuyler, C. S. Shepard, W. B. Duncan.

#### Railroad Notes.

It is reported that the Georgia & Alabama has decided to purchase several additional locomotives.

A freight bureau has been formed by the business men of San Antonio, Texas, with Joseph M. Steere, manager.

John G. Harris has been appointed division freight agent of the Texas & Pacific, with headquarters at New Orleans.

The Savannah Traction Co. is considering a consolidation with the Savannah & Isle of Hope electric line. The latter is nine and one-half miles long.

Henry Jackson has been appointed commercial agent for the Southern at Atlanta, and Howell Peoples traveling agent, with office at Atlanta also.

According to a dispatch from St. Louis, another steamship line is to have a terminus at New Orleans. It is to be operated between New Orleans and Venezuelan ports.

The announcement is made of the appointment of Mr. J. M. Barr as vice-president of the Norfolk & Western Company, with headquarters at Roanoke, Va. Mr. Barr has recently been act-

ing as superintendent of the Great Northern Railway.

W. E. Shuford has been appointed receiver of the Hendersonville & Brevard road, a line which connects with the Southern system in Transylvania county, North Carolina. The road was built about two years ago.

The Seaboard Air Line has issued the announcement that the first and second divisions of the system will be consolidated, with offices at Raleigh, N. C. J. M. Turner has been appointed trainmaster of the division.

The Illinois Central Railroad Co. has added a number of new Pullman sleeping cars to its Chicago and New Orleans service. They are among the finest specimens of rolling stock turned out by the Pullman Company, and are being liberally patronized by Southern travelers.

The Louisville City Railway Co. at its recent annual meeting received reports showing gross earnings of \$1,234,526.20 and net earnings of \$102,938.35. This is a decrease of \$53,797.25 compared with the year preceding. The company controls 145 miles of line, of which thirty are operated by animal power.

The Texas Central Company, at its annual meeting at Waco, Texas, elected officers as follows: President, Henry K. McHarg, Stamford, Conn.; vice-president and general manager, Charles Hamilton, Waco, Texas; secretary-treasurer, Richard Oliver, Waco, Texas; assistant secretary and treasurer, D. Comyn.

The Baltimore & Ohio Railroad, in connection with the Baltimore & Ohio Southwestern and the Columbus, Hocking Valley & Toledo roads, has begun operating a new sleeping-car line from Baltimore to Toledo. The west-bound train will leave at 10.15 P. M., and arrive at Toledo at 6.35 P. M. next day.

F. A. Woodward has been appointed Northwestern passenger agent by the Georgia Southern & Florida line, with headquarters at West Superior, Wis. It is probable Mr. Woodward will devote much attention to the immigration movement to the country adjacent to the Georgia Southern & Florida from the Northwest.

The Baltimore & Philadelphia Steamboat Co. has awarded the contract for a new steamer for its line. The new steamer will be completed in July. She will be 210 feet long and twenty-three feet beam. Her hull will be made of steel. The new boat will have 100 staterooms, and will be fitted up for the accommodation of passengers.

F. M. Ironmonger, the Florida passenger agent of the Clyde Steamship Co., has just issued an interesting illustrated booklet of thirty-odd pages. The cover is in colors, and presents scenes on the ocean and on the St. John's river, Florida. The descriptive matter is devoted to the trip from New York to Charleston and Jacksonville, and to the numerous attractions of the east coast of Florida.

The traffic department of the Florida East Coast Railway and the Key West & Miami Steamship Line has made arrangements with the Morgan Line for the interchange at Key West of passenger traffic to and from Cuba, so that hereafter patrons of the East Coast Railway and steamship lines bound for Cuba can purchase through tickets and transfer at Key West for Havana at the same dock. The Morgan Line steamers leave Key West for Havana on Tuesday evenings at 9 o'clock, and arrive at Key West from Havana early Friday morning, making close connections in both directions with the Miami-Key West steamer.

## TEXTILES.

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the Manufacturers' Record. We shall be glad to have such matter at all times, and also to have any general discussion relating to cotton matters.

### Wants to Move a Cotton Mill South.

Mr. H. N. Randall, of South Woodstock, Conn., who claims to have a good mill for the manufacture of hosiery yarns, warps and twine, contemplates removing to some Southern location. Propositions are now being considered for the location of the enterprise.

### Negro Cotton-Mill Company Organizes

The Coleman Manufacturing Co., of Concord, N. C., reported in our last issue as incorporated, has fully organized and elected officers for the ensuing year. The stockholders met February 22 and chose officers as follows: President, R. B. Fitzgerald, of Durham, N. C.; secretary-treasurer, Warren Coleman, of Concord; directors, R. B. Fitzgerald, of Durham; John C. Dancy, of Salisbury, N. C.; E. A. Johnston, of Raleigh, N. C.; S. C. Thompson, of Camden, S. C.; L. P. Berry, of Statesville, N. C.; S. B. Pride, of Charlotte, N. C.; Dr. C. F. Messerve, of Raleigh, N. C.; W. C. Coleman and Robert McRea, of Concord, N. C. The directors are all colored men except Dr. Messerve, who is president of the Shaw University, at Raleigh, and it will be remembered that colored labor is to be used exclusively in the operation of the plant. The company has about decided upon a building 74x100 feet in size, equipped with 3000 spindles and 100 looms, and a 25-acre site has been secured. Work on the factory will be commenced soon.

### Textile Notes.

Mr. M. C. Mayer has resigned the presidency of the Ada Manufacturing Co., of Charlotte, N. C., and Mr. P. M. Brown has been elected to succeed him.

Application has been made for a charter for the Beaufort Knitting Mill Co., of Beaufort, S. C., with a capital stock of \$20,000. The incorporators are R. A. Long and George Holmes.

The Taylorsville Cotton Mills, of Taylorsville, N. C., has recently completed its stone mill building, and will soon install an equipment of machinery. Mr. U. L. Alspaugh is president of the company.

The enlargement to the Henderson Cotton Mills, of Henderson, N. C., noted last week, has already been built, and seventy-two looms will be installed. The machinery to be needed has been ordered.

Mr. C. O. Witte, representing the bondholders, has purchased the Charleston Cotton Mills, at Charleston, S. C., for \$50,000. It is understood that the company will be reorganized and the mills put in operation.

The Commercial Club of Corsicana, Texas, is in correspondence with an Eastern party relative to the location of a cotton mill in Corsicana. A definite proposition for the erection of the plant will probably be made.

The stockholders of the Cherryville Manufacturing Co., of Cherryville, N. C., held their annual meeting on the 9th inst. Mr. J. M. Rhodes, secretary and manager, read a report of the past year's

business, which was voted satisfactory by the directors. Mr. Rhodes was re-elected to his office, as was David Mauney, president.

The Ashby Cotton Mills, of Marion, S. C., may possibly be enlarged with a new building in the near future. Mr. A. M. Price, who recently purchased this property, has made many improvements to it, expending about \$10,000.

The citizens of Elberton, Ga., are interested in the organization of a cotton-mill company. A meeting to further the enterprise has been held, and committees appointed to solicit subscriptions to stock. A \$150,000 mill is proposed.

Mr. W. H. McGrath, agent of the United Security Co., of Boston, Mass., is endeavoring to induce the organization to invest in a large cotton mill in Dallas. The secretary of the company recently visited Dallas to investigate the possibilities of the field, and will report to the other officers of the corporation. The plant will be a large one if decided upon.

The Langley Manufacturing Co., of Augusta, Ga., held its annual stockholders' meeting on February 17. Reports of managing officers showed the property and business to be in fine condition, and paying well. A semi-annual dividend of 3 per cent. was recently declared. The old board of directors was re-elected. Mr. M. Thomas Barrett, Jr., was re-elected president.

A large addition will be erected by the Louisville Cotton Mill Co., of Louisville, Ky. The building will be three stories high, 78x115 feet in size, and bids on it are now being taken. While no announcements have as yet been made, this building will doubtless be equipped with new machinery. The company now operates 10,400 spindles. Mr. George W. Tarleton is the president.

It is probable that work will be commenced soon on the projected Indian Head Cotton Mills, at Cordova, Ala. This corporation was formed about a year ago to build a \$600,000 mill to contain 30,000 spindles, etc., and New England capitalists are interested. Mr. H. Amory, of Boston, Mass., one of the interested parties, writes that it is hoped building will be begun in the near future.

Work on the Arkwright Cotton Mills, of Spartanburg, S. C., is far advanced. The main building is about completed. It is four stories high, 200x105 feet, with engine and boiler-rooms attached. Sufficient space is provided for an equipment of 10,000 spindles, which will be put in soon. The building is so arranged that enlargements can be made easily. Mr. H. M. Cates is president and treasurer of this company.

The Atlanta Textile Manufacturing Co., of Atlanta, Ga., James L. Logan, secretary, is assured of establishment, and is now arranging to buy its machinery. The equipment is to consist of twenty looms for weaving stay tape and shoe webbings up to three-quarters of an inch wide, with shuttles, warpers, tape winders, quillers, dresser, starcher, etc. Power is to be furnished by a forty horse-power engine and a fifty horse-power boiler. Estimates on the machinery are now being solicited.

The Seneca Manufacturing Co., of Seneca, S. C., recently reported as having obtained charter, has awarded contracts for commencement of work on its buildings. Contract for the construction of the dam and canal has been awarded to F. G. Power, of Atlanta, Ga., and for manufacturing the brick for the buildings to T. J. Hannon, of Piedmont. The main building will be 103x300 feet in

size, three stories high, and is to be equipped with 20,000 spindles and 600 looms. Fine goods will be spun. Mr. J. T. Schirmer is president, and S. K. Dendy, Jr., treasurer.

### COMMERCE OF BRUNSWICK.

#### Prosperity in the Shipping Interests of the Port.

Hardly any city on the Atlantic seaboard has a brighter business outlook in proportion to its size than Brunswick, Ga. Its shipping interests are steadily advancing, and give promise of large increase. Brunswick is a leading cotton-shipping port, and divides honors with Fernandina in phosphate exports, and is next to the largest naval stores market in the world. A revival of the lumber trade with Brazil is appearing.

With the increase in foreign exports and coastwise trade has come about a change in the character of cargoes. Steamships, instead of being solidly loaded with cotton, carry miscellaneous shipments, including cotton, phosphates, pig iron, cottonseed and lumber. This is largely the result of competition in making freights.

An evidence of prosperity is the fact that about \$150,000 is being spent on new buildings and improvements, while it is difficult to find a vacant house.

### New System of Flour Milling.

The H. M. Whitney Manufacturing Co., No. 1826 Olive street, St. Louis, Mo., controls an invention which has been perfected by Mr. Whitney, the vice-president of the company, for the manufacture of a new system of flour milling. The company writes the Manufacturers' Record that this new process will mark a departure in flour milling as important as when rolls superseded millstones. The company also claims to have proved that the Whitney machines will produce a much larger proportion of high-grade flour than is possible under the roller system. The company proposes to erect in St. Louis a 500-barrel flour mill for the purpose of demonstrating the actual results accomplished by this system, and writes that it intends to build a larger machine shop, with a view to the manufacture of flour mills complete on the Whitney process. Mr. John B. Buss is president of the company; Mr. H. M. Whitney, vice-president, and Mr. John James, secretary.

### New Telephone Company.

The Alta Telephone Co., of Baltimore, has decided to issue \$300,000 in 4 per cent. bonds, for which the Maryland Trust Co. will act as trustee. The company is acting in connection with the Best Telephone Manufacturing Co., and its stockholders are largely interested in the latter corporation. The bond issue is to be used in part, so an officer of the company informs the Manufacturers' Record, to establish a plant at which the wood work for the Best Telephone Co.'s apparatus will be made. This plant will begin operations at once, and will be located in South Baltimore.

### A Proposed Sanitarium.

In a letter to the Manufacturers' Record, Dr. E. W. Magann, of Hammond, La., states a company is being organized, with \$100,000 capital, to erect a hotel and sanitarium at that place. The company expects to begin work on the improvements within sixty days, and also proposes to build an electric railroad to connect it with the railroad station. The hotel is to have about 100 rooms, and will be three stories high. An ice plant and electric plant will also be installed.

## COTTONSEED OIL.

This department is open for the full and free discussion of trade topics and practical questions, and contributions are invited from men who are identified with this industry. Items of news are always acceptable.

### The Market for Cottonseed Products.

New York, N. Y., February 23.

Cotton oil has improved in demand, while values are slightly higher than a week ago. The betterment is due to the stronger tone which prevails in the lard market, while tallow would also appear to be in an improved position. Chicago May options for lard were quoted at 4.08 cents during the week. The foreign demand for oil is more satisfactory, and, with better freight accommodation and holders disposed to sell at current figures, a good export trade would obtain. It is plain, however, that holders, whether here or in the South, look with disfavor on propositions based on current prices, feeling that the long-deferred return to higher values will soon be inaugurated. The position of oil would certainly favor this view of the situation. A good export demand in March is more than probable, seeing that France has decided to secure supplies from this country rather than from home production. The latter bids fair to be comparatively light, owing to the restrictions placed upon goods imported from infected Indian seaports, with especial reference to oil seeds. On the other hand, while stocks of oil in the country are admittedly less than a year ago, the depressed condition of animal fats has materially lessened home consumption. Refiners are purchasing sparingly, thus leaving ample oil for current needs. With animal products in a better position, the prospective export demand and comparatively light stocks would have the effect of immediately advancing prices. It is considered by well-informed manufacturers of the trade, the latter desideratum may be deferred for the reasons assigned. Prime yellow has been sold at 25 cents for May-June delivery, and at 24½ cents a large business could be transacted. The demand for prime crude for compound lard or soap-making is slow. At 20 cents prime crude could be readily traded, but holders refuse to release under 20½ cents. Stocks in refiners' hands, both here and in the West, are moderate, the uncertainty of a permanent improvement in lard rendering heavy purchases of oil for future needs out of the question. What is needed to put the business on a paying basis is a shortage in hog receipts at packing centres, which, in conjunction with the almost assuredly increased export demand, would have the effect of advancing prices several cents per gallon. Receipts aggregate 7200 barrels, while total exports reached 7200 barrels, 5000 of which were destined for Marseilles. England is again in the market, and with the expected advance in the home oil, an increased volume of business would doubtless follow with regard to purchasing of American grades. The following are closing prices: Prime crude, 20½ to 21 cents; prime crude f. o. b. mills, 15½ to 17 cents; crude, off quality, 19½ cents; prime summer yellow, 23½ to 24 cents; yellow summer, butter, 26 to 27 cents; yellow summer, off quality, 22½ to 23 cents; white summer, 26½ to 27 cents; yellow winter, 29 to 31 cents; white winter, 30 to 32 cents, and soap stock, per pound 5½ to ¾c.

Cake and Meal.—Galveston and New Orleans continue to export freely, and while no advance in prices has been made, the possibility of rapidly-decreasing stocks here, together with an improved demand abroad, would indicate

higher figures. That but a very limited supply of seed yet available will enter into consumption as a fertilizer material, preferably than to the mills, is now beyond doubt, thus pointing to comparatively light cake stocks, as well as those of oil, for the period intervening between now and next crushing season.

#### Cottonseed-Oil Notes.

The British steamship Scottish Hero arrived at Velasco, Texas, on the 18th inst., and will take out a cargo of 900 tons of cottonseed meal for Europe, furnished by the Velasco Oil Mill.

It is reported that the bonus required to be raised by the citizens of Beeville, Texas, to secure the large cottonseed-oil mill of Goliad has been collected, and Beeville will soon have an oil mill.

The total foreign exports of cottonseed oilcake and meal for the year 1896 from the port of Galveston, Texas, amounted to 136,648 tons, valued at \$2,967,879, against 105,736 tons, valued at \$2,117,218, for the year 1895. Exports of cottonseed oil for 1896 amounted to 1,936,499 gallons, valued at \$493,794, and for 1895 the exports were 678,766 gallons, valued at \$236,208.

It is stated that there is a possibility of a cottonseed-oil mill being established at Taylor, Texas, to take the place of the one destroyed by fire last fall. The American Cotton Oil Co., of New York city, has decided to establish two new mills in Texas the coming season, in addition to the 105 mills now owned and operated by the company in the United States. A party of gentlemen representing that company were in Taylor last week prospecting, with a view to selecting a location for one of the two mills to be erected, and were favorably impressed with the locality. They are now awaiting the decision of the executive committee of the company, which will settle the matter of location.

#### Iron Markets.

Cincinnati, Ohio, February 20.

The extraordinary sales of steel rails during the past three weeks, now reported to have been as much as 1,000,000 tons, have resulted in a quickening of the general steel and iron market, and imparted a large measure of hope and expectancy in the direction of improved condition of manufacturing and commerce.

The continued enlargement of exports of pig iron, steel rails, machinery, hardware, etc., in addition to liberal shipments of cereals, keeping the trade balance handsomely in our favor, contributes further to strengthen the hopes of an early general revival.

During the week just closing inquiries and sales have been somewhat more numerous, though prices have been irregular.

In our report last week regarding the stocks on hand, by accident a line was left out. We intended to say that the stocks of coke iron at the furnaces and in the storage warrant yards of the United States aggregate approximately 900,000 tons.

Bessemer pig has stiffened 50 cents per ton, but non-Bessemers, because of surplus and liberal production, are as yet not participating in any advance.

We quote for cash f. o. b. Cincinnati:

Southern coke No. 1	-\$10 75
Southern coke No. 2	-\$10 25
Southern coke No. 3	-\$10 00
Southern gray forge	-\$9 51
Tennessee charcoal No. 1	-\$13 25
Lake Superior coke No. 1	-\$14 00
Lake Superior car-wheel	-\$15 25
Southern car-wheel	-\$15 25
Genuine Connellsville coke	-\$14 55
West Virginia Coke	-\$14 20

We quote for cash f. o. b. Philadelphia docks:

No. 1 X standard Alabama	-\$11 75
No. 2 X standard Alabama	-\$11 25
No. 1 X standard Virginia	-\$11 75
No. 2 X standard Virginia	-\$11 25
No. 1 X lake ore iron	-\$13 50
No. 2 X lake ore iron	-\$13 00
Lake Superior charcoal	-\$15 85@ 16 35
Standard Georgia charcoal	-\$16 25@ 17 00

ROGERS, BROWN & CO.

It is stated that Mr. Robert Morgan, of Orange, Texas, has received an order for 500,000 pieces of yellow pine from Manchester, England, to be used in making bed-spring frames. This is the first order of the kind ever placed in that section, the material ordered generally coming from Norway. Mr. Morgan has placed the order with the D. R. Wingate Lumber Co., which is getting it ready for prompt shipment.

New York, N. Y., February 20. There are live prices at work in the market that have been wanting for many weeks past. The most important is the demand for ores and coke and Bessemer pig, created by the big steel-rail orders. Under this influence Bessemer has gone up perhaps 50 cents per ton, and steel billets about as much, by sympathy. Allied branches of the market naturally feel the effect of these movements, and greater activity and a more confident feeling generally prevail.

Nothing is needed but a revival of demand for finished products to put the whole market in good shape. That demand is still wanting, except in spots, but there are signs that it is coming. While it is wanting, stocks of foundry and mill iron at furnaces are slowly accumulating, and prices, while pretty firm, show no recovery.

The cable brings news of a break in Scotch warrants, due to the alarm at American importations of pig. The discovery that leading British railroads have placed large orders for American steel rails will not tend to allay this alarm. Still the entire amount of iron and steel so far engaged for export since the movement started is scarcely 3 per cent. of a year's product of English and Scotch furnaces, and unless the business rapidly grows it can scarcely have a permanent effect upon prices on the other side.

Meantime it will be strange if the rule of very low prices in America does not stimulate consumption at home to a marked degree before the year is out.

We quote for cash f. o. b. docks or cars New York:

No. 1 X standard Southern	-\$11 75
No. 1 X Virginia	-\$11 75
No. 2 X Alabama or Virginia	-\$11 25
No. 1 soft Alabama or Virginia	-\$11 50
No. 1 X lake ore coke iron	-\$13 50
No. 2 X lake ore coke iron	-\$13 00
Lake Superior charcoal	-\$16 35

Boston, Mass., February 20.

Demand is still light, and the market is very quiet. Some foundries report getting a little more work, but the majority are dull. The leading melters are consuming just about 50 per cent. of their normal requirements.

St. Louis, Mo., February 20.

The activity of the iron market is overshadowed by the great demand for steel rails, and is quiet by comparison. The demand for rails will eventually act on the iron market, as a purchase of rails by a railroad in many instances means extension of the line, and then follows equipment, creating a demand for every form of iron product.

Prices of Southern pig iron are firmer than a week ago.

We quote for cash f. o. b. St. Louis:

Southern coke No. 1	-\$10 75
Southern coke No. 2	-\$10 25
Southern coke No. 3	-\$10 00
Southern gray forge	-\$9 51
Tennessee charcoal No. 1	-\$13 25
Lake Superior coke No. 1	-\$14 00
Lake Superior car-wheel	-\$15 25
Southern car-wheel	-\$15 25
Genuine Connellsville coke	-\$14 55
West Virginia Coke	-\$14 20

We quote for cash f. o. b. Philadelphia docks:

No. 1 X standard Alabama	-\$11 75
No. 2 X standard Alabama	-\$11 25
No. 1 X standard Virginia	-\$11 75
No. 2 X standard Virginia	-\$11 25
No. 1 X lake ore iron	-\$13 50
No. 2 X lake ore iron	-\$13 00
Lake Superior charcoal	-\$15 85@ 16 35
Standard Georgia charcoal	-\$16 25@ 17 00

#### PHOSPHATES.

##### Phosphate Markets.

Office Manufacturers' Record,  
Baltimore, Md., February 25.

The local phosphate market is dull, with the situation unchanged. Manufacturers are buying only small lots and merely to supply present wants. At points of production the market is quiet. In South Carolina phosphates are in fair demand from domestic sources, but the foreign business is dull. In the matter of royalty the legislature is now handling that question, while the result is anxiously awaited by those engaged in the industry. Prices still rule nominally steady at \$3 for crude rock at the mines; hot-air-dried \$3.25 Ashley river, and \$3.45 Charleston city. In Florida the work of development in mining rock has been restricted by the recent inclement weather, heavy rains having filled nearly all the phosphate pits in Alachua county. In the Tennessee phosphate district the weather has been of such a character during the past six weeks that mining operations have not been retarded to any great extent, the shipments for January amounting to 6500 tons, and stocks on hand on February 1 amounted to 9500 tons. Mining operations in the Mount Pleasant field of the Tennessee phosphate region were fairly active during the month of January, the shipments amounting to 6500 tons. Stocks of phosphate rock on hand February 1 were 9500 tons. There are no charters reported during the week in the local market. In New York there is a moderate inquiry for sail tonnage, while steamers to load grain are actively inquired for. Phosphate tonnage is dull, with rates nominally unchanged. The following charters are reported: A schooner, 378 tons, from Cartaret to Norfolk with fertilizer at 65 cents, and back to New York with iron at 90 cents; schooner Oscar C. Schmidt, 513 tons, from Charleston, S. C., to Philadelphia with phosphate rock on private terms, and schooner Nimrod from New York to Wilmington, N. C., with fertilizer at 90 cents.

##### Fertilizer Ingredients.

There has been a very light movement during the week in the leading ammoniates, and the market is quiet, with values generally steady. There is some demand from Southern sources, and several sales are reported. In the West the situation is fairly active and the offerings generally moderate, while stocks are ample for the current demand. The movement in the Eastern market is dull, and in the absence of any pressure to sell, values are well maintained. The syndicate has announced the scale of prices for 1897, and this has caused some business for potash salt. Nitrate of soda is quiet but firm, with a light inquiry.

The following table represents the prices current at this date:

Sulphate of ammonia (gas)	\$2 25@ —
Nitrate of soda	1 95@ —
Blood	1 75@ 1 77
Hoof meal	1 65@ 1 70
Azotine (beef)	1 70@ —
Azotine (pork)	1 70@ —
Tankage (concentrated)	1 65@ 1 70
Tankage (9 and 20)	1 65 and 10
Tankage (7 and 30)	15 00@ 16 00
Fish (dry)	20 00@ —
Fish (acid)	11 00@ 12 00

##### Phosphate and Fertilizer Notes.

The British steamship Ingram sailed from Brunswick, Ga., last week for Rotterdam with a cargo of 2000 tons of phosphate rock, valued at \$20,000, from the Brunswick Terminal Co.

The Dunnellon Phosphate Co. held its annual election in Ocala, Fla., on the 16th inst. and re-elected its present officers. President, Capt. John L. Inglis, of Madison; treasurer, H. D. Auchincloss, of New York, and R. D. Barker, secretary.

The Virginia-Carolina Chemical Co., of Richmond, Va., has declared a dividend of 1 per cent. on the common stock of the company, payable on and after March, 1897.

The Bone Hill Consolidated Phosphate Co., near Bartow, Fla., is now operating its mines on an extensive scale, giving employment to a number of hands. The company is now engaged shipping two cargoes of pebble.

The British steamship North Anglia, for London, cleared from Savannah, Ga., last week with 2542 tons of phosphate rock, valued at \$25,420, and the British steamship Elfrida, for Bremen, with 1500 tons of phosphate rock and other cargo.

The steamship Eastland arrived at Fernandina, Fla., on the 19th from Las Palmas to take a cargo of phosphate rock. The steamship Atlantic sailed on the 16th inst. from Fernandina, Fla., with 2600 tons of phosphate rock for Harborg.

In the South Carolina senate on Saturday last, on motion of Mr. Sloan, the vote whereby Mr. Talbird's bill empowering the phosphate commission to reduce the royalty on phosphate was killed, was reconsidered and the bill ordered to a third reading, with notice of general amendment.

Among the shipments from Charleston, S. C., last week the following vessels are reported: Schooner Isaac H. Tillyear for Philadelphia with 800 tons of phosphate rock, and the schooner Annie C. Grace for the same port with 730 tons. The schooner Emma C. Knowles cleared for Elizabethport, N. J., with 950 tons of phosphate rock, and schooner B. F. Walker for Norfolk, Va., with 1010 tons. The total shipments of rock to domestic ports since September 1, 1896, aggregate 43,273 tons, against 55,844 tons for the corresponding period last year.

##### The Texas's Safe Voyage.

The battle ship Texas, which has been subjected to fiercer and more prolonged attacks from enemies than any other vessel of the new navy, has completed a voyage from New York to Galveston, Texas, of nearly 2000 miles, and a dispatch from that city states that she did not sink, lost no men, was not damaged and came up to the expectations of her commander and officers during the entire trip. The Texas passed through the gale in which the squadron of Admiral Bunce was so severely treated, and from which the Indiana, the pride of the North Atlantic fleet and the boast of the Cramps, returned to Hampton Roads to escape. While many of the Northern papers have asserted that the Texas was liable to drown her crew in the dock by sinking with them, it would seem as if this Southern-built ship was one of the most seaworthy of them all.

Shipments of lumber from Jacksonville, Fla., were active during the past week. Among the vessels clearing were the following: Schooner Albert J. Butler for Portland, Me., with 215,000 feet of lumber; the British schooner City of Nassau cleared for Nassau, N. P., with pine lumber, shingles and general merchandise; schooner Robert C. McQuillan for Providence, R. I., with 372,000 feet of lumber; steamship George W. Clyde for Boston with 200,000 feet of lumber and other cargo; steamship Comanche for New York with 300,000 feet of lumber, 2500 crossties, 4500 bundles of shingles and other cargo, and the steamship Seminole for New York with 150,000 feet of lumber, 2100 crossties, 50,000 shingles and other cargo.

The schooner S. B. Hubbard was loading 500,000 feet of yellow pine lumber for New York.

## LUMBER.

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

### LUMBER MARKET REVIEWS.

#### Baltimore.

Office Manufacturers' Record,  
Baltimore, Md., February 25.

The week under review shows but little change in the general lumber market, and the volume of business has been extremely light. There is very little demand from local buyers, and yardmen, builders, boxmakers and other woodworking concerns are only purchasing in small quantities to meet actual necessities. The receipts of yellow pine are moderate, and present stocks are quite ample for the current demand. In air-dried pine prices continue nominally steady, with no prospect of an early advance. On the other hand, kiln-dried North Carolina pine is firm, with considerable inquiry for lots from first hands, and a good deal of actual business is expected from this source later on. Cypress lumber is quiet, with values rather easy. In white pine there is some business reported, and there has been some demand from out-of-town parties, but the local trade is dull. Planing mills report business as quiet and orders light, with prices not altogether satisfactory. Other woodworking concerns are not operating on an extensive scale at the moment. In hardwoods the local demand does not seem to improve, and most of the business is done with out-of-town buyers. The export trade has fallen off considerably in the last fortnight on account of unfavorable news from the European markets. Stocks at Liverpool and other markets in Great Britain are excessive in most cases, and as the demand is limited shippers in the local market are cautious in their movements and will not ship under present conditions.

The following list represents the prices current at this date:

[The quotations for yellow pine are for cargo lots, and for all hardwoods the figures indicate values for choice car lots.]

VIRGINIA AND NORTH CAROLINA PINE	
5-4x10 No. 2, kiln dried.....	\$12 50@ 13 50
5-4x12 No. 2, kiln dried.....	14 00@ 15 00
4-4x10 No. 1, kiln dried.....	15 00@ 16 50
4-4x12 No. 1, kiln dried.....	15 50@ 16 50
4-4 nar. edge, No. 1, kiln dr'd.....	13 00@ 14 00
4-4 wide edge, No. 1, kiln dr'd.....	17 00@ 18 00
6-4x10 & 12, No. 1, kiln dried.....	23 00@ 24 00
4-4 No. 1 edge floor, air dried.....	13 50@ 14 50
4-4 No. 2 edge floor, air dried.....	10 50@ 11 50
4-4 No. 1 12-in. stock, air dried.....	15 50@ 16 50
4-4 No. 2 12-inch stock.....	12 50@ 13 50
4-4 edge box or rough wide.....	7 50@ 8 50
4-4 edge box do. (ord. widths).....	6 50@ 7 50
4-4 12-inch rough.....	9 00@ 10 00
3/4 narrow edge.....	5 50@ 6 50
3/4 wide.....	6 50@ 7 50
4-4 10 1/2 and 10 1/4-inch.....	8 50@ 9 50
Small joists, 2 1/2-12, 14 and 16 long.....	7 50@ 8 50
Large joists, 3-16 long and up.....	8 00@ 9 00
Scantling, 2x3, 2x4 and 3x4.....	7 00@ 8 00

WHITE PINE.	
1st and 2d clear, 4-4, 5-4, 6-4 and 8-4.....	47 00@ 48 00
3d clear, 4-4, 5-4, 6-4 and 8-4.....	42 00@ 43 00
Good edge culls.....	14 00@ 15 00
Good stock.....	16 00@ 17 00

CYPRESS.	
4-4x6, No. 1.....	20 50@ 21 50
4-4x6, No. 2.....	14 50@ 15 50
4-4x6, 16 feet, fencing.....	10 00@ 11 00
4-4x6, rough.....	8 50@ 9 00
4-4 rough edge.....	8 00@
4-4 edge, No. 1.....	16 00@ 17 00
4-4 edge, No. 2.....	12 00@ 13 00
Gulf, 4-4, Nos. 1 and 2.....	28 00@ 30 00
Gulf, 6-4, Nos. 1 and 2.....	31 00@ 32 00

HARDWOODS—WALNUT.	
5-8, Nos. 1 and 2.....	65 00@ 75 00
4-4, Nos. 1 and 2.....	50 00@ 60 00
5-4, 6-4 and 8-4.....	85 00@ 95 00
Newell stuff, clear of heart.....	85 00@ 100 00
Culls.....	20 00@ 30 00

OAK.	
Cabinet, white and red, Southern, plain-sawed and good, 1 and 2, 8 inches and up, 12 to 16 feet long, 4-4.....	30 00@ 34 00
Quartered white, Western, 1 and 2 quality, all figured, 6 inches and up wide, 4-4.....	53 00@ 55 00
Culls.....	10 00@ 15 00

POPLAR.	
Nos. 1 and 2, 5-8.....	24 50@ 25 50
Nos. 1 and 2, 4-4.....	28 00@ 30 00
Nos. 1 and 2, 6 and 8-4.....	32 50@ 33 50
Culls.....	11 50@ 12 50

SHINGLES.	
Cypr., No. 1 h'rts, sawed, 6x20.....	6 50@ 7 50
No. 1 saps, sawed, 6x20.....	4 75@ 5 25
No. 1 hearts, shaved, 6x20.....	6 00@ 7 00
No. 1 saps, shaved, 6x20.....	5 00@

LATHES.	
White pine.....	2 50@ 2 75
Spruce.....	2 10@ 2 20
Cypress.....	2 10@ 2 20

#### Charleston.

[From our own Correspondent.]  
Charleston, S. C., February 22.

The lumber market continues quiet, with a steady demand for all desirable grades, and prices show considerable firmness. During the past week the volume of business has been fair, and there is a good inquiry both in a local way and also from out-of-town buyers. The foreign inquiry is limited in character, although some business is recorded nearly every week from that source. The cross-tie industry is active, with a good demand from Northern ports. At Georgetown all the mills are busy, and have orders sufficient to keep them at work for sometime to come. The schooner Nellie Floyd cleared from Georgetown last week with a cargo of crossties, and the schooner Warren B. Potter for Boston with a cargo of yellow-pine lumber. At other milling points adjacent to the city business is reported fairly active, with a good inquiry for lumber. In a local way there is quite a demand for lumber and timber for building purposes, and considerable is expected to be done during the spring and summer by builders. The market closed steady on Saturday last at the following quotations: Merchantable lumber, \$14 to \$16 for city-sawed, \$12 to \$14 for railroad; square and sound, \$9 to \$13 for railroad, \$8 to \$11 for raft; dock timber, \$4.50 to \$6.50; shipping, \$8.50 to \$10.50. There is a fair demand for shingles at \$5 to \$7 per thousand. During the past week the following vessels cleared with cargoes: Steamship Agnes for Jamaica with 150,000 feet of lumber, and barkentine Clara E. McGilvery with 210,000 feet of lumber for Boston. The total clearances of lumber for domestic ports since September 1, 1896, amounts to 26,127,984 feet, and of foreign 899,000 feet, making a total of 27,026,984 feet, against 34,360,370 feet for the corresponding period last year. Freights are quiet and firm with a light offering of desirable tonnage. The rates to New York are \$4.38 to \$4.50, and dry lumber to Providence \$4.50; crossties 14 to 14 1/2 cents each for pine, and oak ties 19 cents. The schooner Jennie E. Righter, 615 tons, was chartered last week in New York to load here with lumber for New London at \$4.50, with coal out from Norfolk at \$1.

#### SAVANNAH.

[From our own Correspondent.]  
Savannah, Ga., February 22.

A fairly active demand for lumber has ruled during the past week, and while the general trade of the port is now quite brisk, lumbermen are also participating in the movement. The demand for the better grades of manufactured material is improving, and both here and at nearby ports of Georgia the industry is in better shape. Reports from interior milling sections are encouraging, and prices are generally very steady at quotations. The crosstie industry is showing up well, and, in fact, the inquiry for all wood products indicates a revival in business. On Saturday the market closed firm, with quotations as follows: Ordinary sizes, \$11 to \$12; difficult sizes, \$13 to \$18; flooring boards, \$15 to \$22; shipstuff, \$16.50 to \$20, and sawn ties, \$10. Among the shipments this week were the following: Schooner Jennie Thomas for Baltimore with 491,948 feet of pitch-pine lumber, and the schooner Rob Roy for Philadelphia with 549,247 feet. New York steamers took out 115,000 feet of lumber, Boston steamers 27,500 feet, and Philadelphia steamers 18,000 feet. At Brunswick the movement in wood and its products is

at the moment much improved, and the mills at that port and adjacent milling points are all operating on full time. The shipments of lumber and timber from Darien are active, and receipts of timber at that point are reported quite liberal. Prices are nominally steady. Freights on lumber and timber continue very steady, with a moderate offering of handy-sized tonnage. The rates from this and nearby ports in Georgia are quoted at \$4 to \$4.50 for a range including Baltimore and Portland, Maine; railroad ties, basis forty-four feet, 16 cents. Timber rates are fifty cents to \$1 higher than lumber rates. To the West Indies and Windward rates are nominal; to Rosario, \$12 to \$13; to Buenos Ayres and Montevideo, \$10 to \$11; to Rio Janeiro, \$14, and to Spanish and Mediterranean ports, \$11.30 to \$11.50. To the United Kingdom for orders rates are nominal for lumber at £4 5s. per standard. Steamer rates to New York and Philadelphia, \$7; to Boston, \$8, and Baltimore, \$5.

#### Pensacola.

[From our own Correspondent.]  
Pensacola, Fla., February 22.

The week under review has developed a more active trade in both lumber and timber, and the situation begins to brighten with the return of spring. The recent rise in the upper streams was the first opportunity that logmen and timber cutters have had to get their rafts to market, and it is thought that the large quantities of logs and hewn and sawn timber will nearly all be gotten out. There is a fair demand for sawn timber, and the market is a shade better than last week, and when placed upon the market will bring 11 cents per cubic foot, 40-foot basis. Contracts are made at 10% to 11 cents per cubic foot. Cypress is steady, with a fair demand, at 5 to 8 cents per cubic foot, according to the average. Cedar is dull at 20 to 30 cents, according to quality and size. Pine logs delivered at the mills are quoted \$5 to \$7.50 per 1000 superficial feet. Hewn timber is quoted 12 to 12 1/2 cents. There is a greater snap and vigor in lumber circles, and the demand from Central and South America is improving. The various saw-mill plants adjacent to this city are now nearly all running and are well supplied with orders. Among the shipments reported during the week are the following: Bark Revolving Light for Belfast with 52,355 cubic feet of sawn timber, 25,069 cubic feet of hewn timber and 15,864 feet of lumber; bark Paramatta for Newcastle-on-Tyne with 75,366 cubic feet of sawn timber, 3690 cubic feet of hewn timber and 13,350 feet of lumber; bark Sjohogen for Amsterdam, Holland, with 60,005 cubic feet of sawn timber and 9415 feet of lumber. The brig Estella cleared for Cardenas, Cuba, with 240,000 feet of lumber; schooner Schmidt for Havana with 256,400 feet; bark Parenti for Buenos Ayres with 465,878 feet; schooners Blake with 140,000 feet, and Union with 30,000 feet, both for Grand Cayman; schooners Columbia with 10,500 feet, and Harold with 12,000 feet, both for Boca del Toro. The total shipments of lumber since September 1, 1896, aggregate 34,161,866 feet, against 30,603,148 feet for the corresponding period last year. Freights are steady, with no material change in rates. In New York last week the following charters were reported: A Norwegian bark, 705 tons, from Mobile to Hamburg with deals and boards at 97/6, and the Norwegian bark Lorise, 971 tons, from Ship Island to the United Kingdom or Continent with sawn timber at private terms.

#### Beaumont.

[From our own Correspondent.]  
Beaumont, Texas, February 20.

The situation of the lumber market shows no new features. The export trade forms the life of the business, and is very active. Fourteen vessels were at the "Pass" the present week, and shipments are moving out at a lively pace. The Reliance Lumber Co. during the week cleared the Hitcheeck from Mexico with a cargo of 450,000 feet, and is now rapidly loading three more vessels. The Consolidated Lumber Co. has sent 860,000 feet to Vera Cruz on the Nellie Bonham and Thomas Winsmore. The Asa T. Stowell arrived in port Wednesday from Tampico, and is now receiving a cargo from the Consolidated Company for the same port. There is a good probability that before long a mill will be established at Sabine Pass, which will confine itself to the ex-

port trade. The parties interested are F. W. and W. A. Gilchrist, of Alpine, Mich., and other prominent Northern millmen. These gentlemen have been prospecting in this section, and after a careful survey, it is rumored they have about decided to establish a mill at the Pass. These gentlemen declare the Pass to be an ideal location for a mill. Logs can be brought down the Neches and Sabine rivers, which penetrate the finest long-leaf pine district in the country, and then towed across the lake at a comparatively slight cost and the manufactured article placed directly at the vessels, with no freights or other charges. These gentlemen own, beside their mill interests in the North, a fleet of over forty vessels on the great lakes, and it is their intention, in case they establish at the Pass, to bring these vessels South to handle their export business.

Reports from Washington are to the effect that the engineers' surveys and estimates of the proposed channel through Sabine lake have been presented to the House. The estimates for a 25-foot channel call for an expenditure of over \$4,100,000; a 12-foot channel would require about \$2,900,000, while an eight-foot channel, it is thought, could be obtained for about \$550,000.

Mr. B. S. Woodhead, representing the Consolidated Export Co. at Tampico, Mexico, returned Thursday on the Stowell for a short visit home. Mr. Woodhead reports trade good at the Tampico yards, and says that there is a very free movement from there to interior points at present.

R. P. Clark & Co., of Galveston, have been awarded the contract for the wharf improvements to be made by Kountz Bros. at Sabine Pass. These wharves and accompanying improvements will cost about \$50,000.

#### St. Louis.

[From our own Correspondent.]

St. Louis, Mo., February 22.

With generally good weather prevailing, the volume of business in almost every avenue of the lumber industry is increasing. Commission men and manufacturers are generally encouraged by the outlook, and the demand is increasing every week. Orders coming in are mostly from country dealers who have let their stocks run very low, and are now doing some good buying. There has been a decided gain in the yellow-pine business during the past week, with a good demand from the eastern section, while in the middle West and territory west of the river there is also an improvement in the demand. There is a fairly active demand for white pine, and orders from the country are more numerous, and are generally for larger lots than usual. There is but little change in the hard-wood trade, and while orders are coming in rather freely and are for larger quantities, the spring trade is not yet fairly opened. Prices are generally firm and unchanged, with a fair demand for all classes of stock. The river trade is improving, and receipts of cottonwood and cypress are increasing, while a good demand for both these woods is expected. White quartered and plain red oak is in good request, but there is very little inquiry for other varieties. Stocks of poplar at the mills are in good shape, and ample for the demand, which is fairly active. There is very little movement in low-grade walnut, but in uppers for export there is a good inquiry. There is some demand for ash, and prices are firm, with a good supply. Builders are getting ready for business, and it is stated that there will be an enormous amount of building this summer. Real-estate men are jubilant over the situation at pres-

ent, and the prospects are brighter as the season advances. There was considerable activity last week in building circles, as shown by the permits issued. A \$16,000 ice plant and one for \$6400, a \$4000 factory addition, an \$8000 church and parsonage and a \$16,000 row of houses, besides a number of substantial improvements, were reported. Money was easy at 6 per cent, and a few specially good loans were negotiated at 5 to 5½ per cent. Most of the transactions were building loans, and ranged all the way from \$2000 to \$10,000. Among the lumber companies incorporated, the Frost-Trigg Lumber Co. will conduct a wholesale business here, with a capital stock of \$25,000. This company will be the selling department of several lumber companies operating in Arkansas and Louisiana. The company will have the output of four mills, with a total shipping capacity of 300 cars a month. The receipts of lumber for the week ending the 17th inst. aggregated 712 cars by rail and 152,000 feet from the lower rivers, against 928 cars and 274,000 feet for the corresponding week last year. The shipments were 375 cars, against 544 cars a year ago.

#### Fighting for Free Lumber.

A meeting was held at Detroit on the 18th inst. of Michigan lumbermen who have investments in Canadian pine, and who object to letting the \$2 per thousand tariff go through Congress, as decided upon by the House ways and means committee. A committee was appointed to visit Washington and persuade the House to refuse to adopt the recommendations of the ways and means committee, and to enact instead the McKinley rate of \$1 per thousand.

#### Lumber Notes.

The shipments from Brunswick, Ga., on the 20th inst. of wood and its products were 1,167,000 feet of lumber and 15,000 crossties.

It is stated that M. F. Waite has purchased a site on the railroad near Orange, Va., and will at once build and operate a large spoke factory.

The planing mill of J. R. Lane & Son at Sanford, N. C., was destroyed by fire on the 20th inst. The loss is estimated at \$8000, with no insurance.

Mr. T. O. Meeker, who purchased the Cox saw-mill property at Charleston, W. Va., is about to erect new buildings, and will have a saw mill in operation inside of thirty days.

Messrs. S. & W. H. Northrop, of Wilmington, N. C., cleared the schooner Roger Moore last week with a cargo of 263,871 feet of lumber, valued at \$2896, for Cape Haytien.

It is stated that the Jackson Bros. Co., of Salisbury, Md., at its mill No. 3 has the largest lumber shed east of the Mississippi river. It is 200 feet square, and will hold 5,000,000 feet of lumber.

The Flint River Lumber & Export Co., of Bainbridge, Ga., has changed its name to the Flint River Lumber Co. This company manufactures long-leaf yellow pine, and its product is known favorably to the trade.

The saw mill and machinery owned by Gus Munzesheimer & Co. at Buchanan, Ark., near Texarkana, and valued at \$10,000, was destroyed by fire on the 21st inst. The insurance on mill and machinery was \$3000.

The foreign exports of lumber from the port of Galveston for the year 1896 aggregated 22,784,000 feet, valued at \$291,543, of which Mexico took 13,240,000 feet. For the year 1895 the exports were 18,085,000 feet, valued at \$231,072.

The foreign exports of logs for 1896 were valued at \$56,260.

The following vessels sailed from Fernandina last week: Schooners Flora Rogers with lumber for Port of Spain; Grace Brady with crossties for New York, and Chauncey E. Burke with a cargo of lumber for Philadelphia.

Jas. F. Gregory, Major Engineers U. S. A., Cincinnati, Ohio, will open bids March 6 for furnishing 737,000 feet, B. M., white oak and yellow-pine timber for improving Kentucky river, Ky. Specifications furnished on application.

A fire in the dry-kiln of the Hazelhurst Lumber Co., at Hazelhurst, Miss., on the 17th inst. destroyed the kiln and 100,000 feet of lumber. The value of the dry-kiln was \$2500, and of the lumber \$800, total \$3300, with no insurance.

The Ambler Lumber Co., of Alachua, Fla., which is building and operating the Suwannee River & Gulf Railroad, is doing a very extensive logging business, and shipping on an average 300,000 feet of lumber from Alachua every day.

George Kellar will erect a saw, grist and planing mill combined on the south bank of the Tennessee river at Knoxville, and William Campbell has erected a saw mill, which is now in operation, near Riverdale, Tenn., on the French Broad.

A new lumber company has been organized at Sparta, Tenn., with E. T. Parsons, president; William Lyles, vice-president, and E. E. Carter, secretary and manager. The company will have its headquarters at Lyles planing mills, near the river.

The firm of Smith, Thomas & Co., of Fitzgerald, Ga., has purchased 22,000 acres of pine lands near Ocilla, towards which point the Georgia & Alabama road is being extended. They will at once begin lumbering and turpentining on a large scale.

Mr. George K. Smith, who is known throughout lumber regions of the South, has resigned his office as secretary of the Southern Lumber Manufacturers' Association, and is now with the Holladay-Koltz Land & Lumber Co., of Williamsburg, Mo.

The largest fleet of rafts of logs that has been seen on the Tennessee river for nearly eight years arrived at Chattanooga last week. It is stated that the logging and lumber trade of Chattanooga will be carried on more extensively this year than usual.

A large raft of cedar logs was received at Sanford, Fla., last week for shipment to the Crystal Lumber Co., to be cut into blocks for the Dixon Pencil Co. The logs were cut on the shores of Lake Jessup. It is about 300 feet long, and is equivalent to ten carloads.

The Reliance Lumber Co., of Beaumont, Texas, is now sending forward about 75,000 crossties per month on the big bill of 16,000,000 feet taken sometime ago. In order to meet the demands of the purchasers the company has sixteen mills sawing on this order.

The last rafts of the present fleet of logs arrived at Chattanooga, Tenn., from the upper rivers on the 18th inst. The 5,000,000 feet of logs now in the river at Chattanooga will run the three mills at that point a little over three months. The various lots of timber embrace a variety of woods, such as oak, poplar, pine, walnut and cherry.

The Mechanics, Dealers and Lumbermen's Exchange of New Orleans reports the receipts of lumber in that city for the week ending the 18th inst. at 1,656,000 feet, and for the season 35,283,000 feet, against 59,107,000 feet last year. Receipts of shingles for the week were 210,

000, laths 50,000, oak staves 245,200, and cypress staves 41,000.

The lumber dealers of Fernandina, Fla., have been notified by their customers in the Spanish West India Islands that a war tax of \$2 per thousand on pitch-pine lumber has been imposed by the government. It is stated that this tax will have the effect of injuring trade with the Spanish islands at least temporarily, and the lumber business will suffer until some change takes place.

The clearances of lumber cargoes for the week ending the 19th inst. from Sabine Pass, Texas, were as follows: Schooner Nellie B. Bohannon for Vera Cruz, loaded by the Consolidated Export Lumber Co. with 520,000 feet; the Thomas Winsmore, loaded by the same company with 340,000 feet for Vera Cruz, and the S. P. Hitchcock, loaded by the Reliance Lumber Co. with 501,000 feet of ties for Mexico. The schooner Albert T. Stearns sailed for Tampico with 421,000 feet of lumber. The Reliance Lumber Co. had three vessels in port on the 19th loading lumber; the Consolidated was loading the Asa T. Stowell, and T. E. Spotswood the Carl Frederick.

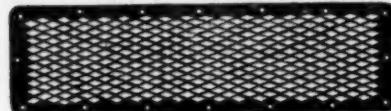
The Nashville lumbermen held a meeting last week in the Chamber of Commerce of that city to take action in regard to the Nashville lumber display at the Centennial. Mr. John B. Ransom was called to the chair. After a thorough interchange of opinions it was decided unanimously to make an exhibit from the Nashville market. The chairman appointed the following committee to collect and prepare the exhibit: John W. Love, C. H. Benedict, Jr., and Wm. Loveman. The display of lumber will, perhaps, be the largest ever collected from any one lumber market in the country. A committee was also appointed to prepare a memorial to Congress asking that the tariff on lumber be reinstated.

The seventh annual meeting of the Southern Lumber Manufacturers' Association convened at Memphis on the 17th inst. The meeting was called to order by President J. J. White, of Macomb City. President White delivered his annual address, which briefly reviewed the yellow-pine industry during the past year. The great depression in the business during the year, the extremely low prices which prevailed, were touched upon, as well as the fortunate fact that every member of this association had been enabled to weather the storm, and not a single failure in the membership had occurred. At the second day's session of the association the report of the price-list was read. It contained but few changes from the list of January 15, these being an advance in each case over the figures adopted at the last meeting. The list as recommended by the committee was adopted, with slight changes. The following officers were elected: President, J. J. White; vice-presidents, S. H. Fullerton, St. Louis; George H. Gardner, Laurel, Miss.; W. R. Pearson, Thornton, Ark.; J. L. Kaul, Holtons, Ala.; J. H. Berkshire, Winona, Mo.; J. W. Amerman, Texarkana, Texns; H. H. Wheless, Aldenbridge, La.; treasurer, A. S. Trauss, St. Louis. Among the other matters of interest discussed was an appropriation for a display of yellow-pine products at the Tennessee Centennial. The special committee appointed recommended that not less than \$700 be spent on the exhibit, which amount, after discussion, was raised to \$1000. The board of directors selected F. M. McCullom, of St. Louis, as secretary, to succeed George K. Smith. The convention decided to hold its semi-annual meeting at Nashville in August, and adjourned sine die.

## MECHANICAL.

### Steel Stair Treads.

A source of expense to owners of large establishments, particularly factories, is the wear upon stairways. The regular daily passing to and fro of hundreds of employees soon causes ordinary steps to become unsightly and dangerous, and re-



STEEL STAIR TREAD.

pairing or renewing is always in order. To save the necessity for this, A. J. Beckley & Co., of Meriden, Conn., manufacture perforated steel stair treads, an illustration of which is herewith given. They are made in different sizes, according to their uses.

### PETROLEUM-CAN MACHINE.

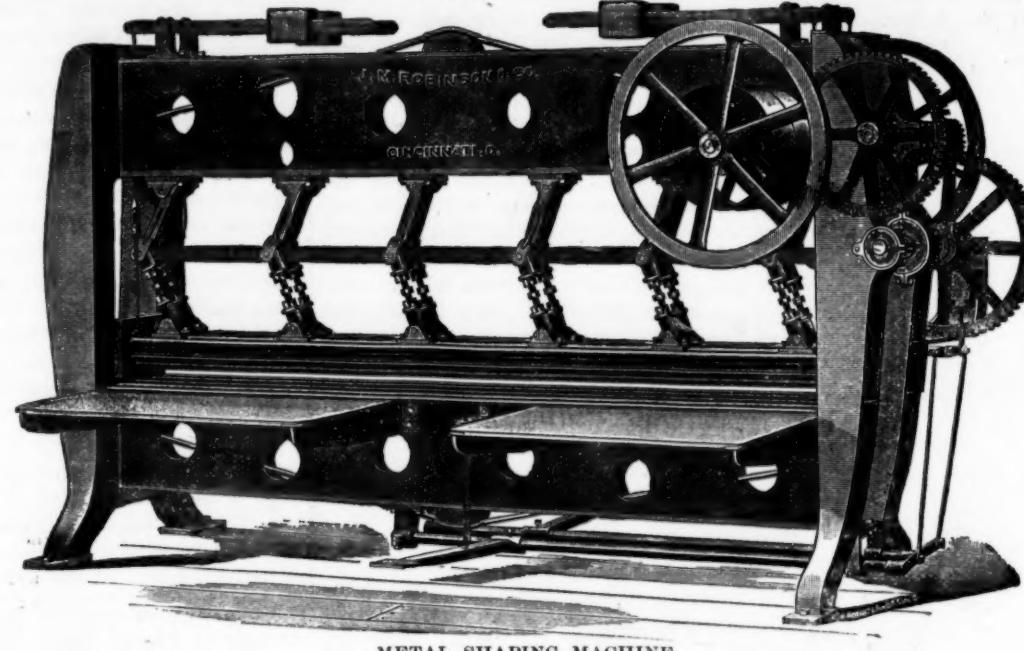
#### Improvement in the Bliss Special Inclined Power Press.

Improvements have recently been made in the Bliss special inclined power press for the manufacture of petroleum cans. As shown in the cuts, it is supplied with a panel-pressing die, a hook-forming attachment, an automatic trip gage and a bending device. A sheet of tin, cut to the proper size for one-half of the body, is slid by hand into the inclined panel-pressing die against a trip gage, which lifts automatically after the panelling and hook-forming dies have done their work, thus permitting the blank to slide back into the bending attachment, leaving the panel-pressing die ready to receive a new blank. Thus, after the first blank has fallen into the bending attach-

hooks for the lock seams and bending the sheet at right angles ready for closing the seams.

The machine for the manufacture of five-gallon cans, as shown in the illustration, is very compact, occupies a floor space over all of 54x40 inches front and back by right and left, and weighs complete 5000 pounds. It is built by the E. W. Bliss Co., of Brooklyn, N. Y.

For example, the Hopedale Machine Works, of Hopedale, Mass., which is engaged largely in the manufacturing of machinery for working cotton, sent to the manufacturers blue-print drawing of the size and shape it required in 12-foot lengths of No. 16 gage mild sheet steel. The operation may be outlined as follows: A sheet of No. 16 gage mild sheet steel, thirty inches wide and twelve feet long, good work. The slides to which the traveling portion of the dies are attached are of extra depth and width, and are supported by arches and moldings with six toggles, equally distributed on the surface of each, thus preventing any springing while pressing the sheet metal into molds. Power is transmitted through gearing on to a shaft, to which are secured cams, by which motion is commu-



METAL SHAPING MACHINE.

### Metal Shaping Machine.

Frequent enquiries from persons wishing to substitute iron in place of wood and stone induced J. M. Robinson & Co., of Cincinnati, Ohio, to give much thought to the subject of a machine that would do that work. The result was a device that is able to form No. 16 gage mild sheet steel into various shapes of 12-foot lengths or less. The material thus

On the outer edges was formed a three-quarter-inch bead or roll. Second. The centre of the sheet was depressed to the depth of seven inches, thus forming a triangle, with an opening of two inches, terminating with a five-eighths-inch half round at the point or top of a triangular shape, thus produced in No. 16 gage steel twelve feet long. Two other formations for the same works were produced in 12-foot lengths.

The general design and make-up of the

nated to a horizontal bar. Each toggle is linked to the bar at the knee, the lower end to the movable slide, and the upper, or stationary end, to the cross-top beam. Thus, a movement of the horizontal bar causes the toggles to straighten to a perpendicular position and bring a downward pressure on the slide. When the motion of the slides come to a stop by action of the clutch movement, can be continued by the operator with foot pressure on the treadle. The weights are se-

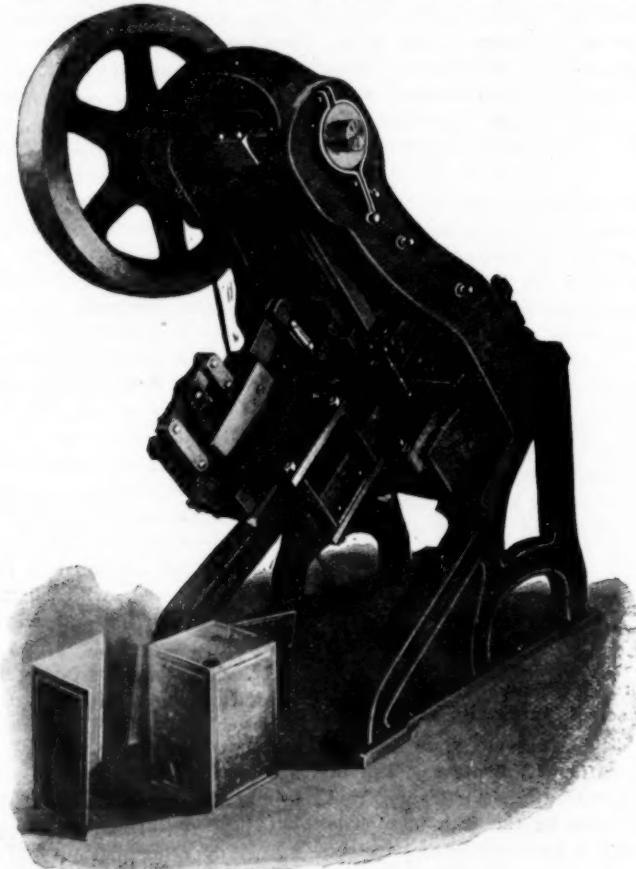


FIG. 1.

ment, a second one is fed into the paneling dies, and while this is being stamped the first blank is being bent. In this manner, therefore, after the second blank has been started a complete half of a can body is produced at each stroke. This arrangement allows an experienced operator to feed up to 14,000 blanks (7000 cans) in a day of ten hours, the machine stamping the panels, preparing the

formed was true and straight in every particular, thus dispensing with the use of a hammer for straightening. Several formations have been made of No. 13 and No. 14 gage material in 10-foot lengths, used as brackets for heavy sliding doors. The introduction of this machine opened up a new avenue of trade and manufacturing of sheet iron into various shapes to take the place of wood.

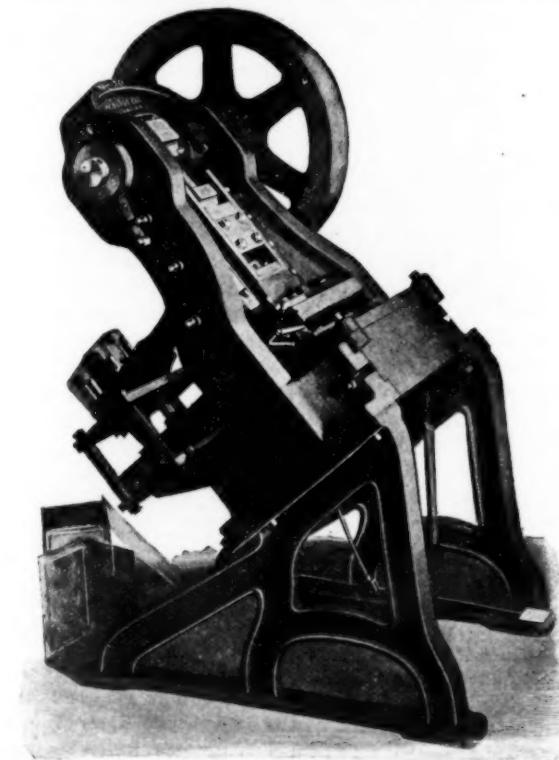


FIG. 2.

machine shown herewith, with a general distribution of material, indicates strength, with power to resist and prevent springing, according to the demands for which it is intended. The weight of machine is about 22,000 pounds, of cross-beams about 2800 pounds each. These are supported with cast-iron arch cast to and is part of the interior, and braced with heavy hog chain, running from one beam to the other, thus securing solidity, which is the main feature in producing

cured to levers (seen on top of cut), and by means of connecting rods are secured to slide, thus securing a regular movement of the slide.

Sheet metal of Nos. 14 and 16 gage, of various shapes, can be formed true and straight in 12-foot lengths or less by the machine.

### Improved Slip-Roll Formers.

A new line of slip-roll formers, with a device for raising one end of the upper

roll and holding it suspended, has been introduced by the Niagara Stamping & Tool Co., of Buffalo, N. Y. The lifting device enables the operator to remove the

planing machine. It is manufactured by the E. & B. Holmes Machinery Co., of Buffalo, N. Y. The feed with which the planer is provided can be instantly

adjusted by set screws, so that no liners between caps and boxes are needed. The pressure-bars are of improved construction, and will hold short pieces firmly, so that no end clipping can possibly occur.

The bed, which is cast in one piece, is provided with a removable bedplate, and can be firmly clamped to the sides by powerful compound levers operated by a hand lever. A knife-jointing attachment accompanies each machine.

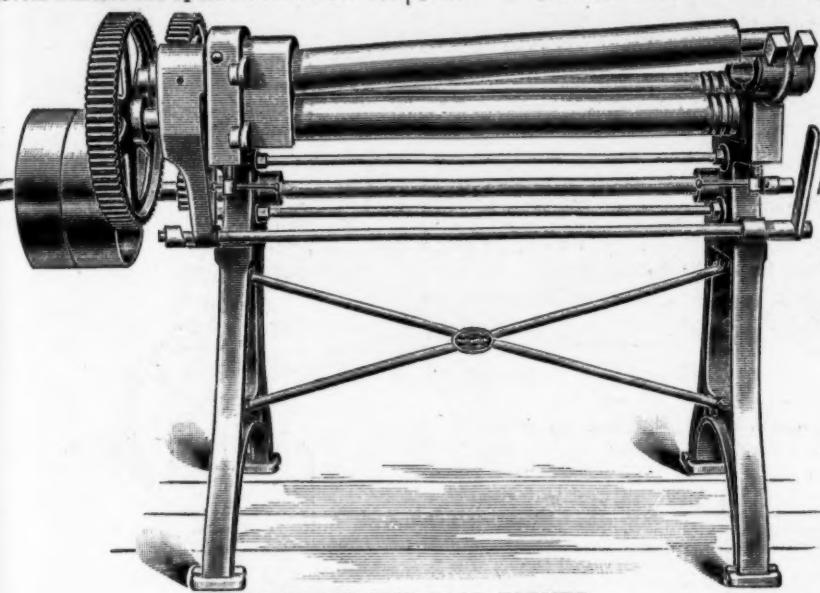
This planer is made to dress one or both sides, and is constructed of the best materials in a first-class manner, and is guaranteed in every respect. Pulleys on cutterheads are five inches in diameter, six-inch face, and should run 4000 revolutions per minute. Tight and loose pulleys on countershaft are ten inches in diameter by 6½-inch face, and should run 850 revolutions per minute.

This machine will do the finest and smoothest work on hard or soft wood, and will plane from one-sixteenth of an inch to eight inches in thickness, by twenty-four inches wide.

#### New Process Raw Hide.

Ordinary raw hide has many valuable uses, but these are said to be increased when the substance is treated by the New Process Raw Hide Co., of Syracuse, N. Y. It will not shrink, it may be stained any desired color, it will take glue nearly as readily as wood, and in single thickness only it may be embossed or molded into any form. By the application of great pressure and other features of the patented process the hide is condensed and all superfluous matter is eliminated, leaving it exceedingly light in weight, but with all other qualities unimpaired. The material thus prepared is made into noiseless gears as strong and durable as metal, and the extent of their

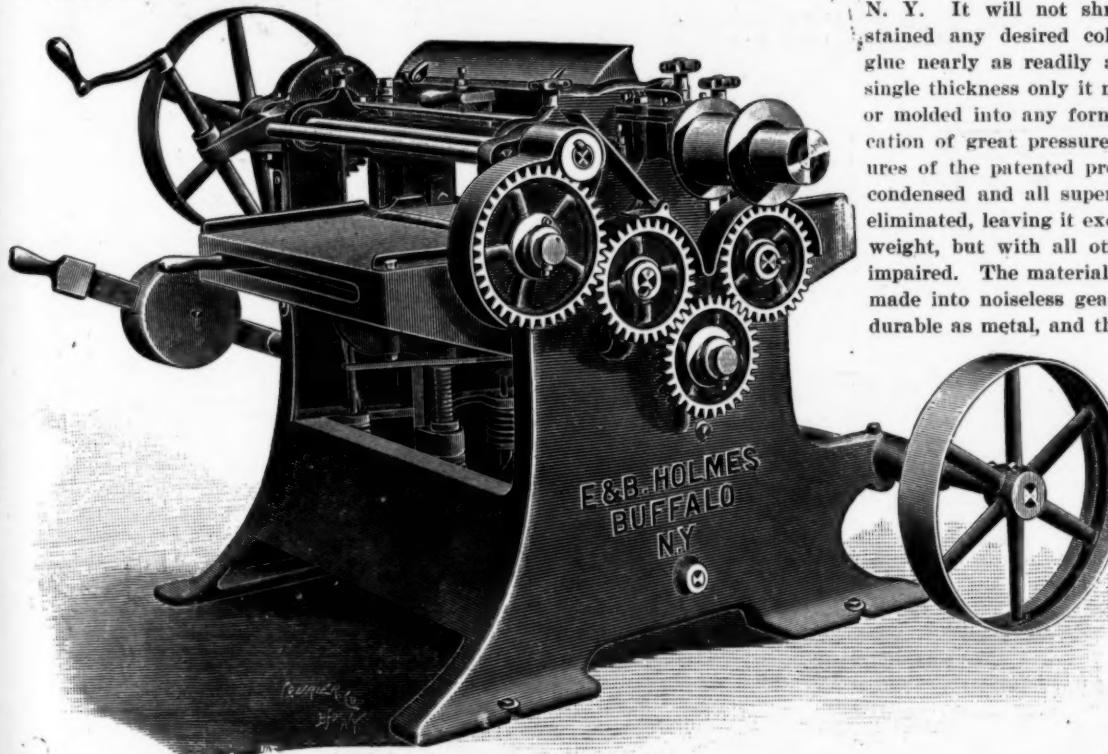
Herewith is published an illustration of the new process raw hide pinion, for which other advantages beside noiselessness are claimed. These are: No lubrication is necessary, and thus cleanliness and a saving in oil and labor are assured. It saves the large gears with which it



IMPROVED SLIP ROLL FORMER.

work that has been formed around the upper roll, especially work of small diameter, without difficulty by slipping it off sideways. The accompanying illus-

changed from 0 to 100 feet per minute by moving a lever, or by reversing it the material may be backed out of the machine.



HOLMES VARIABLE SPEED PLANING MACHINE.

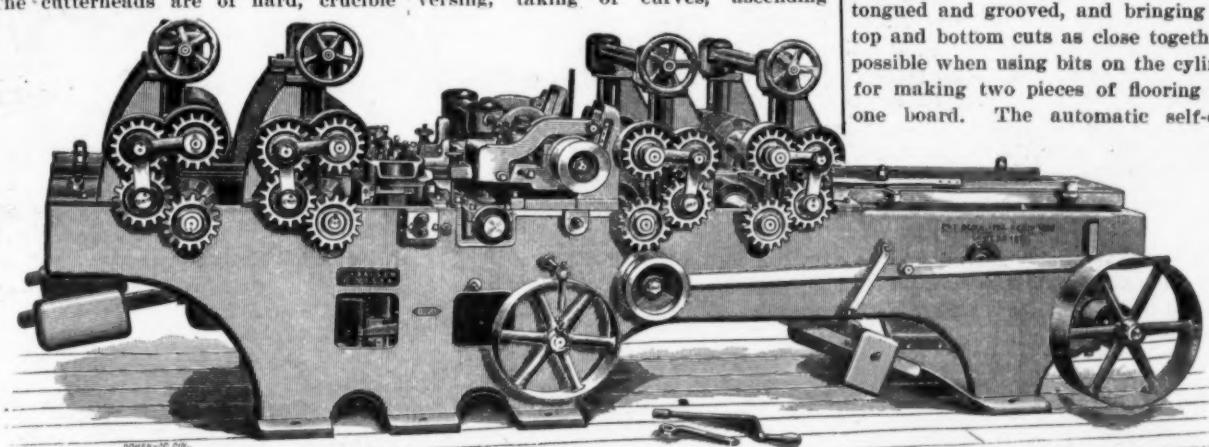
tration is of the lifting device applied to machines with rolls four inches in diameter and larger. The one end of the upper roll rests in a rocking box, which is connected with the shaft that has the handle "A" at the one end. By turning this handle the operator can raise and lower the free end of the upper roll quickly and with ease. The cap of the journal at the free end can be fastened and released instantaneously. Slip-roll formers of smaller diameter are furnished with a lifting device of somewhat different construction, but equally simple and effective. These formers have rolls made of steel, finely finished, and all parts are made amply strong to withstand the strain. Four-inch and larger rollers are furnished on iron legs. Smaller machines are furnished for bench use. Driving mechanism is all at one side of the machine, out of the way of the operator, and connecting gears are made of steel castings.

#### A Pony Planer.

One of the greatest improvements in woodworking machinery is a pony planer, known as the Holmes variable speed

feeding rolls are of solid steel, with large bearings, and are powerfully geared, all idle gears being self-oiling. The cutterheads are of hard, crucible

use for electric-motor cars, where the supreme test is made in the sudden starting and stopping of cars, overloading, reversing, taking of curves, ascending



"LIGHTNING" FLOORING MACHINE.

steel, and have bearings two inches in diameter, and of ample length. The boxes are lined with genuine Babbitt metal and are self-oiling, and can be ad-

justed by set screws, so that no liners between caps and boxes are needed. The pressure-bars are of improved construction, and will hold short pieces firmly, so that no end clipping can possibly occur.

grades, etc., as well as for roller mills, elevators, machine tools and geared machinery of all kinds, evidences their popularity.

pressure-bar before the cut of the upper cylinder on the feeding-in side is attached to arms that swing eccentric to the periphery of the cylinder, insuring safety

from contact with the cutters. The bar after the cut of the upper cylinder adjusts itself vertically and is self-oiling in

drill manufactured by Dreses, Mueller & Co., Cincinnati, Ohio. The drills are friction clutch, back-gear, the friction

screw on the operating lever to slip at a certain strain for bottoming tapping. The quick return for the spindle has four handles, either of which operates the disengaging clutch.

The feed is engaged or disengaged by the touch of a knob, and the speed is changed by shifting a collar, all while the drill is running.

The column is arch-shaped, and revolves on steel balls. The arm is regulated by power, and slides on a flat surface. The table arm can be swung all around the column, and all clamping are done by fixed handles. Patents are pending for many of the features of the machine.

#### For Relishing and Mortising.

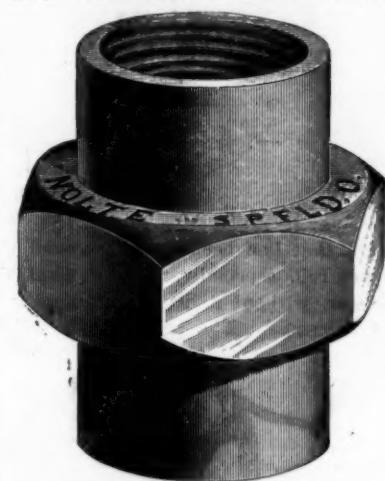
A machine which may be furnished as a sash mortiser only, a sash and blind mortiser and relisher, a sash and blind mortiser and relisher with blind rail routing attachment, or complete, with door rail relishing and wedge-cutting attachment, with or without power feed for mortiser, is manufactured by the Rowley & Hermance Co., Williamsport, Pa. It is shown with this article, and is called the No. 2 door, sash and blind relishing and mortising machine. The frame is very heavy and cast in one piece, and so designed that various kinds of work may be done without interference with each other.

The mortising is performed with an oblong hollow chisel and an auger bit revolving inside, which cleans the chips out of the mortise perfectly in the same operation. The depth of mortise is regulated by adjustable stops. The table moves forward to the hollow chisel, either by foot-power or automatic power feed. With the automatic power feed the mortising is done much quicker and with greater ease to

The relishing of the door rails and cutting the wedges are performed by saws by one handling. The table has a vertical adjustment by means of a foot-treadle, and is provided with adjustable stops to regulate the depth of the relish. The relishing of sash and blinds is performed at the rear of machine, and is provided with all the attachments, including adjustable stops, gages, boring bit and cutter-head for completing the relish. The recess for the blind rod is routed at the same time the blind rail is relished, and is performed by a vertical spindle and router cutter.

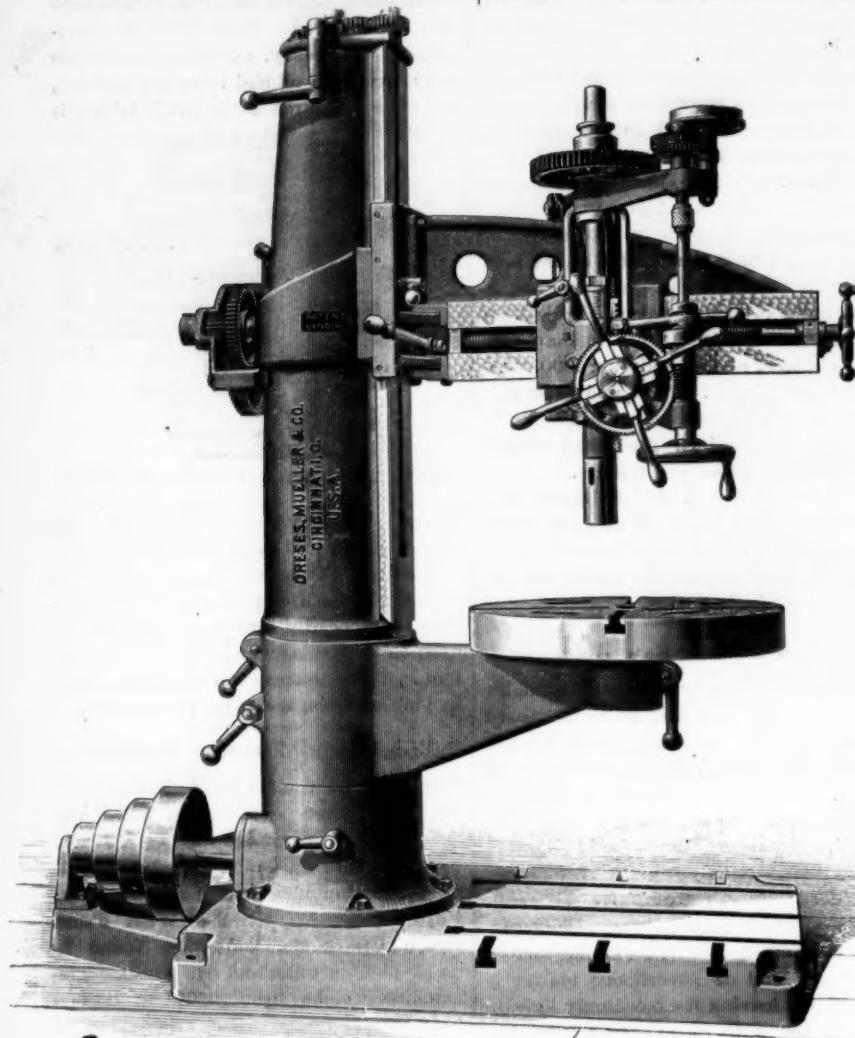
#### Special Brass Union.

A brass union especially adapted for high-pressure service is shown in the cut



A BRASS UNION.

on this page. It is manufactured by the Nolte Brass Co., of Springfield, Ohio, in sizes ranging from one-quarter inch to two inches, either rough or finished. It has a ground joint, ball seat, and washers or packings are not required. The



COMBINATION RADIAL DRILL.

its operation. Both bars are adjustable to and from the cylinder to give room for different lengths of cutters required in making moldings, drop-sidings, etc. The bed under the cylinder has a plate that can be detached for replanning or adjustment. The bar has a separate vertical adjustment and a lock attachment for holding it in the proper position after once being set.

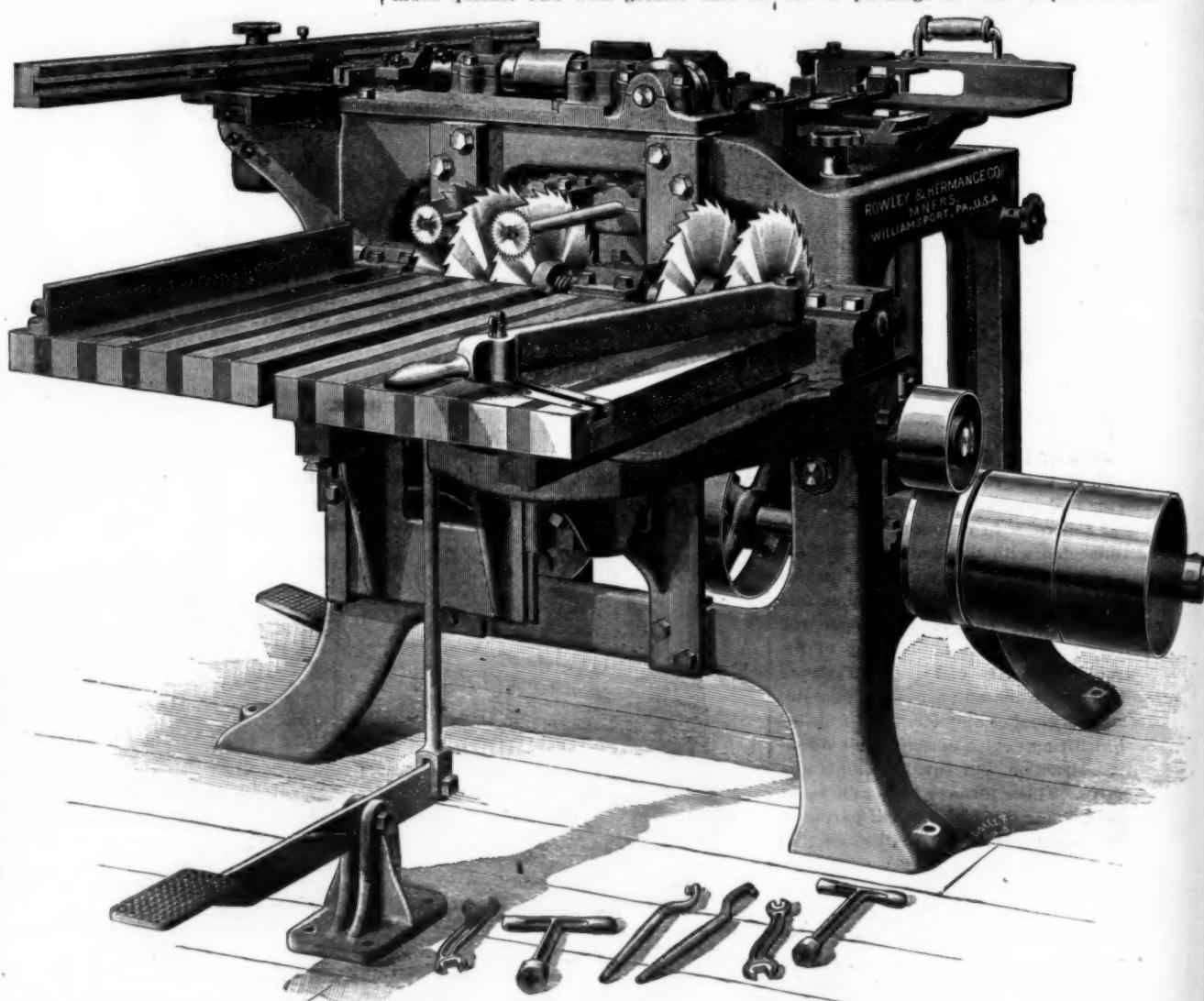
The matching works are of the most substantial character. The matcher spindles are one and three-quarters inches in diameter where the cutting heads are applied, run in self-oiling bearings, and are adjustable independently or simultaneously across the bed-plate to any desired point, so that the wear of the cutters can be equalized. They have a vertical adjustment in the lower bearing to take up any wear in the spindles, and are provided with lock attachment for holding them in position when once set.

The feed works consist of eight rolls eight inches in diameter, two pairs before the cut of the upper cylinder and two pairs after the cut of the matcher heads. These carry the lumber entirely through and away from the cutters. They are mounted on planed upright stands fitted with pivoted boxes and connected by heavy expansion gearing. These gears have gun-metal bushings and steel links on both sides, connecting with the upper and lower roll-shafts, and will open to receive material six inches in diameter.

The machine is made to work either eight, fifteen or eighteen inches in width to six inches in thickness, and is regularly supplied with pulleys for sixty-two and eighty feet per minute.

#### A Radial Drill.

The accompanying cut represents the outgrowth of a most careful study of the modern wants of a machine tool. It is an illustration of a 62 combination radial



No. 2 DOOR, SASH AND BLIND RELISHING AND MORTISING MACHINE.

is very simple in construction, self-adjusting, and the gripping power for tapping can be regulated by the knurled head

the operator. The gage is provided with adjustable stops, and once set no laying-out on the work is required.

union is used for steam, water, gas and other connections where a light joint is required.

**Corn-Ear Crusher.**

A light-running and popular machine is the improved corn-ear crusher of Sprout, Waldron & Co., Muncy, Pa. The crusher parts are made of the hardest white iron, and the breaker shaft and the driving shaft are of cold rolled steel. The lower bearings for both shafts are cast in one piece, making it impossible for the gears to get out of line. All the bearings are lined with the best Babbitt. They are



CORN-EAR CRUSHER.

easily adjusted to break fine or coarse by the hand-screw while in operation.

Two sizes are made. No. 1 is four feet high, 30x30 inches on the floor, and 30x34 inches over all. Its weight is 350 pounds, the driving pulley is sixteen inches in diameter and should run from 300 to 400 revolutions per minute. No. 2 weighs 500 pounds; its pulley is twenty inches in diameter. The first will crush from twelve to thirty bushels of corn ears, and the second from forty to ninety bushels in an hour.

**Krotz Oil Filter.**

A new saver of oil, known as the Krotz oil filter and purifier, has been put on the market by the Akron Belting Co., of Akron, Ohio. Where oil is used freely by workmen, 75 per cent. of it is frequently wasted or thrown away. To prevent this, and at the same time to pre-



FIG. 1.

serve the lubricating properties of the oil, is the purpose of the filter.

It is made of heavy galvanized iron, neatly painted and fitted with polished brass.

In operation the waste oil is thrown into the cover and passes into the chamber A, and by reason of the increased level in chamber A the water is crowded under the false bottom and into the cham-

ber B, as indicated in the sectional view, the oil passing down through the filtering material and crowding under the low side of the false bottom and rolling in a thin film from the low side to the high under water pressure, after which it flows up through the water and filtering material in chamber B. When the oil passes under the false bottom it is broken up by the V-shaped rakes F, spreading it over the entire surface, each globule of oil rolling under the false bottom and under water pressure, taking what grit or dirt may have passed through the filtering material in chamber A. Any dirt or grit that may have worked past the

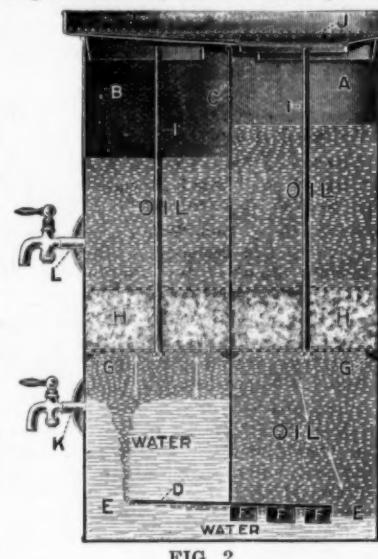


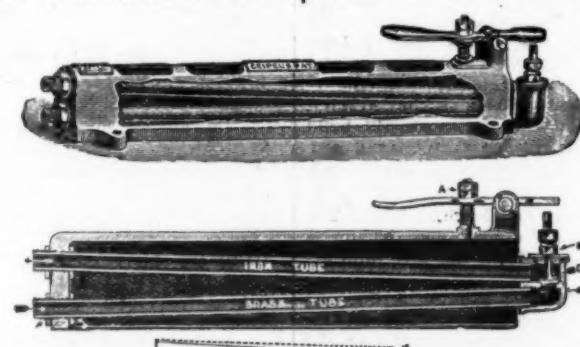
FIG. 2.

false bottom is caught when the oil passes up through the filtering material in chamber B. It will be seen that as waste oil is thrown into chamber A, or filtered oil drawn from chamber B, the oil level is changed, putting the filter in operation, the flow through the filter being gradual and uniform and the amount filtered according to the requirements, the operation being automatic.

The valve K is provided for draining out the surplus water, the clean oil being taken from the valve L. The filtering material in chamber B very seldom needs renewing. The material in chamber A can be removed and replaced without draining or disturbing the balance of the filter.

**Geipel's Patent Steam Trap.**

A steam trap that has been used to a great extent abroad, and has been most successful for pressures ranging from one pound to 300 pounds, is Geipel's patent steam trap, the workings of which may be understood from the illustration. When cool the valve box is down and the valve is open. When steam enters the



GEIPEL'S PATENT STEAM TRAP.

lower brass pipe it is expanded. This raises the valve box and valve, the latter comes in contact with the lever and is closed before the steam reaches it, as a very small expansion of the pipe produces a large movement of the valve. The trap is compact, and may be fixed on the base of an engine or the boiler-room wall without occupying valuable space. The valve can be removed and examined in a very short time. The trap, having only

two tubes, there is no place in which scale or dirt can lodge. Thorpe, Platt & Co., of New York city, are its sole manufacturers.

**Blind and Noiseless Hinges.**

Wear and tear of material and annoyance from slamming and rattling of window shutters are avoided, it is claimed, by the use of Stenger's patent positive-locking noiseless blind hinges, made by the Wrightsville Hardware Co. of

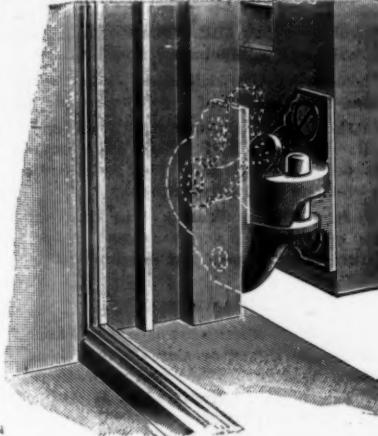
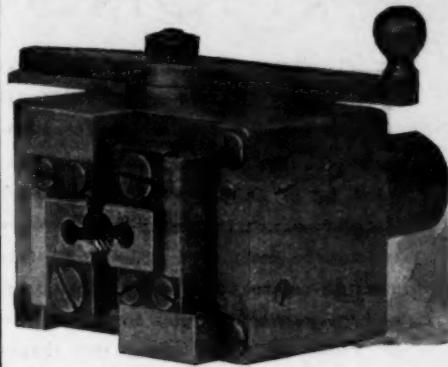


FIG. 1.

Wrightsville, Pa. Blinds fitted with them cannot be lifted off when opening or shutting or by the wind. A small lever forms a positive lock, and the blinds cannot be blown shut. By raising the lever the blinds can be closed very readily, the

size; few wearing parts; will not wear out quickly; will not clog with chips; will do as fine and as close work as desired;



GARDNER DIE HEAD.

small cost of extra dies. Charles H. Besly & Co., of Chicago, Ill., are the manufacturers.

**TRADE NOTES.**

**Change of Address.**—O. W. Clapp & Co., brokers, have changed their offices from the Mills Building to No. 56 New street, New York city.

**Engines for Russia.**—The Paris agency of the Westinghouse Machine Co. recently sold four Westinghouse compound engines, aggregating 1100 horse-power, for electric-railway service in Russia.

**Terra-Cotta Plant.**—An opportunity for a reliable man with capital to engage in a profitable manufacture is offered by Business, Box 150, Atlanta, Ga., who has for sale a plant that turns out all kinds of terra-

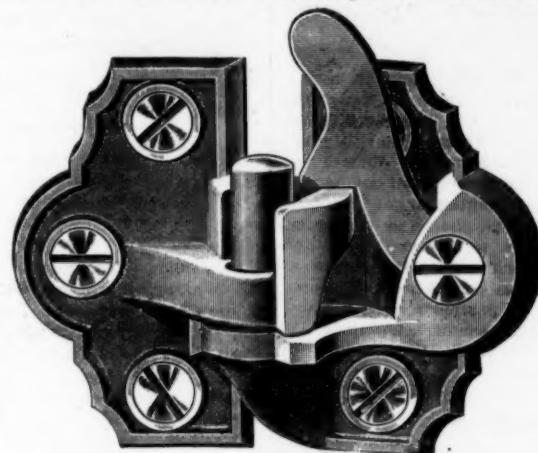


FIG. 2.

hinges working very smoothly and noiselessly. It is not gravity-locking. When the blind is open the small lever drops into its place, locking the blind, and the "back stops" prevent rattling of the blinds by the wind.

**Gardner Die Head.**

Accompanying this is a cut of the Gardner No. 94 die head, which is built

cotta work, and which is said to be a profitable investment.

**Elevators a Specialty.**—Messrs. M. J. Quigley and Charles C. Selbert, formerly with the James H. Curran Co., of Cincinnati, now control the Cincinnati Elevator Works. Both are practical men in the elevator business.

**Engines to go Abroad.**—The International Electric Co. of Liege, Belgium, has bought from the Westinghouse Machine Co. three Westinghouse compound engines of 300 horse-power each, and one of 100 horse-power. This is a repeated order.

**Engines for Dynamos.**—An electric-light plant has lately been placed in the Waukesha County Insane Asylum, Wisconsin. The Ball Engine Co., Erie, Pa., furnished the engines. The same company has also furnished five direct-connected sets of engines, amounting to 900 horse-power, for the Chicago Public Library. The Chicago Edison Co. furnished the dynamos.

**A Baltimore Industry.**—Appealing strongly to the local trade is an industry established in Baltimore by Clendenin Bros. They have secured valuable machinery and skilled workmen to manufacture steel-cut and wire nails, and they are prepared to supply the home demand through jobbers. They regard their facilities as a guaranty of nails of the best quality.

**Light-Weight Belting.**—A belt which, it is claimed, does proper work always, and which has proved satisfactory in many places, is the "Defiance" brand manufactured by Messrs. I. B. Williams & Sons, Dover, N. H. They recommend it as a lighter-weight belt for lighter work than their "Cocheco" brand. Their catalogue will be sent upon application to the office of the company, Dover, N. H.

# CONSTRUCTION DEPARTMENT.

**T**HE MANUFACTURERS' RECORD seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

\* Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery Wanted."

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the Manufacturers' Record.

It often occurs that the organization of a new company in any town is not known by the postmaster, and hence letters addressed to the company are returned marked "not known." The Manufacturers' Record reports the first organization of all companies, and our readers, in seeking to get into communication with them, should be very careful in deciding how to address them, and even then they must expect the return of some letters, because of the lack of knowledge on the part of postmasters of all new companies. Criticisms and complaints are invited, as they will the better enable us to guard against errors.

#### ALABAMA.

Birmingham—Cotton Mill.—A letter to the Manufacturers' Record says: "The actual facts regarding the proposed \$600,000 cotton mill, anent which many reports are at present in circulation, are: When Birmingham raises its quota of stock, \$250,000, New England machinery men will raise as much more, less a certain amount of stock which David Trainer, of Fort Mill, S. C., will take. Mr. Trainer is to be superintendent of the mill. For further information address David Trainer at Fort Mill, S. C., or probably H. S. Chadwick at Charlotte, N. C."

Birmingham—Brewery, etc.—Isaac Newman, of New Orleans, will remodel and improve the Birmingham brewery preparatory to operating same. A new ice machine of thirty tons daily capacity will be put in. J. L. Knoepfle, of New Orleans, will be the manager of the plant.

Birmingham—Iron Furnaces.—The Sloss Iron & Steel Co. is making general improvements to its No. 2 and No. 3 furnaces.

Brenton—Water Works.—A bill has been introduced in the legislature asking permission to vote on issuing bonds for \$25,000 to construct water works. Address the mayor.

Fort Payne—Pottery.—H. T. Pope and B. F. Kidder are equipping a plant for the manufacture of earthen jars, churns, flower pots, etc.

Huntsville—Broom Factory.—The Spring City Broom Works has been organized and established.

Mobile—Barge Line.—A bill has been introduced in the legislature to incorporate the Alabama River Barge Line & Railroad Co. for the purpose of operating a barge line from the Cahaba coalfields to Mobile. Incorporators are E. C. Nachen, John J. Shepard, B. S. Bibb, W. H. Thindale and W. M. Vaughn; capital stock is \$100,000.

Montgomery—Paving Improvements.—The city has let contract to the Coaldale Brick & Tile Co., of Birmingham, Ala., for furnishing 1,250,000 vitrified brick for street-paving improvements. Address the mayor for further information.

Montgomery—Street Paving.—The city, having disposed of \$150,000 worth of paving bonds, will soon arrange for awarding contracts. Address the mayor.

Talladega—Grist Mill.—S. R. Bingham and associates have built a grist mill.

#### ARKANSAS.

Corning—Flour Mill.—The Corning Milling Co. will build a 100-barrel flour mill.

Dardanelle—Oil Mill.—Joe Evans contemplates the erection of a cottonseed-oil mill.

Little Rock—Natatorium.—Leo Treadway, P. J. Rice and R. S. Page have bought a site which report says they intend to use for erection of a natatorium.

Warren—Water Works.—The city has decided to construct water works. W. J. Savage can be addressed for particulars.\*

#### FLORIDA.

Gainesville—Refrigerator-car Works.—The Express Refrigerator Car Co. has been organized to manufacture and operate refrigerator cars after patents of A. J. McArthur; A. S. Wooley, president; Marcus Endel, vice-president, and F. D. Warner, secretary; capital stock \$50,000.

Jacksonville—Electric-light Plant.—The extension of the city's electric-light plant has been suggested. Superintendent Patterson can give information.

Jacksonville—Garbage Crematory.—The city has awarded contract to the Dixon Crematory Co., of Atlanta, Ga., at \$14,885 for the erection of its garbage crematory.

Miami—Cigar Factory.—H. M. Fritot, formerly of Jacksonville, may establish cigar factory in Miami. Letters care of E. A. Waddell, Miami, will probably be forwarded.

#### GEORGIA.

Augusta—Cotton Compress.—The Union Warehouse & Compress Co., recently noted as organized, etc., writes that it will build a new compress next fall. Machinery for the plant has been ordered.

Dahlonega—Mineral Developments.—R. W. Walker, of Canton, Ohio, is examining mineral property near Dahlonega with a view of buying and developing.

Elberton—Cotton Mill.—The organization of a \$100,000 cotton-mill company is proposed, and committees are now soliciting subscriptions. Z. B. Rogers can be addressed for information.

Fitzgerald—Electric-light Plant.—The erection of an electric-light plant is talked of. C. C. Goodnow, mayor, can probably give information.

Gainesville—Chair Factory.—G. N. Owen is erecting a chair factory; machinery not purchased yet.\*

Gainesville—Shoe and Leather Factory.—The J. G. Hynds Manufacturing Co., shoe and leather manufacturer, will put in machinery for making horse-collars and shoe cartons. On May 1 shoe output will be increased 50 per cent.\*

Gainesville—Gold Mines.—A dispatch says that an English syndicate has completed the purchase, at \$40,000, of several hundred acres of gold-mining lands near Gainesville. Capt. R. R. Asbury, of White county, is said to have been the seller.

Jasper—Machine Shops.—The Atlanta, Knoxville & Northern Railroad will build shops in Jasper. Joseph McWilliams, general manager, Marietta, Ga., can be addressed.

Poulan—Foundry and Machine Shop.—The erection of a machine shop and foundry is talked of. J. G. McPhail can give information.

Poulan—Ice Factory.—Hunton & Co. contemplate the erection of an ice factory.

Resaca—Flour Mill.—S. H. Broune is preparing to build his flour mill of thirty barrels capacity.

Savannah—Terminal and Wharf Improvements.—The Central of Georgia Railway and the Ocean Steamship Co. are now pushing the work of improvements to their terminal and wharf facilities. The improvements include the filling in of a 300-acre swamp, a slip 800 feet long and 200 feet wide, for which R. R. Moore has the contract; new arrangements of the lumber wharves, naval stores and cotton sheds, spur tracks, etc. About \$150,000 is being expended. H. M. Comer, president of the railway, Savannah, can be addressed.

Savannah—Clothing Company.—Samuel Meinhard and others have incorporated the

Metropolitan Clothing Co., with capital stock of \$30,000.

Summerville—Water Works.—The report that this city contemplates \$50,000 bonds for water works is incorrect.

Toccoa—Publishing Company.—D. M. Riordan and others have incorporated the Southern Publishing Co., with capital stock of \$10,000.

#### KENTUCKY.

Ashland—Coal Mines.—E. W. Strack writes that himself and associates may possibly arrange for developments of coal property which they own; developments will probably be in the way of leases.

Covington—M. A. Neff and others have incorporated the Globe Premium Co., with capital stock of \$10,000.

De Koven—Engine Works.—A report says that Dr. B. M. Long is organizing a company to establish rotary-engine works.

Hollidaysburg—Iron Works.—The Eleanor Iron Works has resumed operations after six months' idleness. One hundred men and boys are employed.

Louisville—Cotton Mill.—The Louisville Cotton Mill Co. will enlarge its mill. A new building three stories high, 78x115 feet, will be built. Bids are being taken now.

Louisville—Flour-mill-machinery Works.—The J. N. Case Milling Co., of Columbus, Ohio, manufacturer of flour-mill equipments, is in correspondence with the Vance Land Co., of Louisville, relative to erecting works in the latter city. The company intends also to build a flour mill to demonstrate the working of its system.

Russellville—Lumber Mill.—John E. Roberts and George W. Brown will erect a saw and planing mill.

#### LOUISIANA.

Belle Isle (not a postoffice)—Mineral Developments.—R. S. Withers, of New Orleans, has authorized A. F. Lucas to explore the Island of Belle Isle, on the Gulf coast. Discoveries have been made of sulphur, associated with limestone, shale-bearing petroleum, rock salt, etc. Developments may possibly follow.

Crowley—Paper Mill.—W. W. Duson & Bro. have shipped a carload of baled rice straw paper to a paper mill in Indiana for experimental purposes. If the tests applied are satisfactory there are strong probabilities of a paper mill being erected in Crowley or in its vicinity.

Hammond—Ice Factory and Electric-light Plant.—A \$100,000 hotel company contemplates putting ice and electric-light machinery in its proposed hotel. For particulars address Dr. E. W. Magoun.

New Orleans—Mercantile.—William Adler and others have incorporated the Bonita Mercantile Co., with capital stock of \$16,000.

St. Joseph—Oil Mill.—The erection of a cottonseed-oil mill is talked of.

Shreveport—Ice and Cold-storage Plant.—The Shreveport Ice & Refrigerator Co. will enlarge its factory and add a cold-storage department to its plant. About \$50,000 will be expended on the new machinery and buildings.

#### MARYLAND.

Baltimore—Well-drillers.—The Downin Artesian Well Co. has been incorporated by J. L. Downin and others to drill wells; capital \$1000.

Baltimore—Chewing-gum Factory.—Wm. A. August and others have incorporated the Baltimore Chewing Gum Co., with a capital of \$2000, for manufacturing purposes.

Baltimore—Lime and Cement Works.—The Crown Lime & Cement Co. reported last week as incorporated, has its works completed and will employ sixty men; capacity two carloads daily; cost of plant about \$50,000. Address P. O. Box 581.

Baltimore—Stove Foundry.—A. Welskittel & Sons, manufacturers of stoves, have purchased a site of twenty-five acres, and will erect a new plant. New plant will include a large enameling establishment, iron foundry, etc. Gas and electricity will be used for lighting.

Baltimore—Candy Factory.—The George Blome & Son Co., manufacturer of candy, will erect a new factory. The main building of the present factory, at 619 West Baltimore street, will become a part of the new factory. This latter building will be six stories high, 75x178 feet in dimension, equipped with machinery, electric-light plant and other apparatus. Daily capacity

of factory will be 100,000 pounds, and working force will be increased from 175 to over 300. Alfred Mason is preparing plans for the building.

Baltimore—Manufacturing.—C. E. Baldwin and others have incorporated the Ringrose Car Mover Co., with a capital stock of \$50,000, to manufacture a patent apparatus for moving cars.

Baltimore—Telephone Factory.—The Alta Telephone Co. will establish a factory for telephone equipment. W. H. Atkinson, of the Best Telephone Co., Fayette and North streets, is interested.

Fork—Creamery.—A company is to be organized to establish a creamery. John Arthur and W. O. B. Wright are interested.

Pikesville, etc.—Electric Lighting.—The Pikesville, Reisterstown & Glyndon Electric Co. has been incorporated, with a capital stock of \$25,000, and purposes distributing electric lights for the towns mentioned in its title. The incorporators are Edmund T. Mudge, Henry L. Naylor, Arthur A. Rich, Frank Della Torre and Randolph Barton, Jr., all of Baltimore. Address either Mr. Rich or Mr. Barton, at Baltimore.

Prospect—Creamery.—Jno. L. Scarborough and others have incorporated the Prospect Creamery Co. (This item was reported by error under Harford, Md., last week.)

St. Michael's—Telephone Line.—The Union Telephone Co., of Easton, Md., will construct a line from St. Michael's to Royal Oak and Easton.

Washington, D. C.—Manufacturing Novelties.—Walter B. Herron, John Humphrey and E. B. Burke, of Washington, and others have incorporated the Eureka Manufacturing Co. for manufacturing purposes; capital stock \$100,000.

Washington, D. C.—Brick Works.—The Electric Brick Co. has organized, with H. D. Walbridge, president, and H. D. Norton, secretary-treasurer.

#### MISSISSIPPI.

Handsboro—Saw Mill.—S. T. Gause contemplates the erection of a saw mill.

Holly Springs—Water Works.—The city contemplates the construction of water works, and hydraulic engineers are invited to correspond relative to preparation of surveys and estimates. Address the mayor.

Natchez—Steam Laundry.—E. M. Clarke will establish a steam laundry.

Port Gibson—Water Works.—The city has awarded contracts for a portion of its water works. Address the mayor.

Vicksburg—Furniture Factory.—The Vicksburg Furniture Manufacturing Co. is now erecting its factory. Main building is 160x60 feet, warehouse 70x170 feet; will cost about \$20,000, and employ 150 men.

Vicksburg—Telephone System.—William Henry, of Jackson, Miss., and E. M. Huber, of Mississippi, have applied to the city for telephone-system franchise.

#### MISSOURI.

Columbia—Coal Mines.—The Boone County Coal Co. has been organized as a result of the investigations reported during the week as being made by Wisconsin parties. Extensive mining operations will be inaugurated as soon as railroad facilities are secured, and arrangements for this latter have been completed. Haskell Withers, of La Crosse, Wis.; J. S. Merchant, of Black River Falls, Wis., and William McMillen, of Nellsville, Wis., are interested. Three thousand acres of land cover the property. Machinery will be bought at once. They expect to employ 300 men.

Jerico—Tile Factory.—Mr. Waldvogel will establish a tile factory.

Kansas City—Spring Company.—J. G. Schermerhorn and others have incorporated the Atkinson Tension Spring Co., with capital stock of \$30,000.

Kansas City—Ore-refraction Company.—W. M. Morgan and others have incorporated the Morgan Refractory Ore Reduction Co., with capital stock of \$50,000.

St. Charles—Bridge.—The St. Charles & St. Louis Bridge Co. is endeavoring to arrange for the early commencement of work on its proposed highway bridge. Address care of Theo. Bruere.

St. Joseph—Mining Company.—Charles A. Blair, W. B. Crane and others have incorporated the St. Joseph Land & Mining Co. with capital of \$2500.

**St. Louis—Flour-mill Works.**—The Whitney Manufacturing Co., 1826 Olive street, reported last week, will erect a plant for the manufacture of flour-mill machinery invented by H. M. Whitney. A large machine shop will be equipped with planers, lathes, grinding machinery, corrugating machinery, etc.\*

**St. Louis—Brass and Copper Works.**—Jas. Sweeney and others have incorporated the Jas. Sweeney Copper and Brass Works, with a capital stock of \$50,000.

**St. Louis—Chemical Laboratory.**—H. C. L. Luyties and others have incorporated the Fairchild Chemical Laboratory Co., with a capital stock of \$5000.

**St. Louis—Lumber Company.**—E. W. Frost and others have incorporated the Frost-Trigg Lumber Co., with capital stock of \$25,000.

**St. Louis—Novelty Works.**—R. M. Dickson and others have incorporated the Eccentric Hame Fastener & Novelty Co., with capital stock of \$50,000, to manufacture novelties.

**St. Louis—Roofing Works.**—Jas. M. Hays and others have incorporated the Hays-Terpening Manufacturing Co., with a capital stock of \$20,000, to manufacture roofing materials and supplies.

**St. Louis—Cycle Company.**—James Arbuckle, Jr., and others have incorporated the Arbuckle Cycle Co., with capital of \$5000.

**St. Louis—Drug Company.**—W. H. Haning and others have incorporated the Ingram Pill Co., with a capital stock of \$10,000.

**Weston—Bakery.**—J. M. Railey and others have incorporated the Railey & Bro. Bakery Co., with capital stock of \$25,000.

#### NORTH CAROLINA.

**Concord—Cotton Mill.**—H. N. Randall, of South Woodstock, Conn., contemplates the removal of his yarn, warp and twine mill to Concord or some other Southern city. The matter is not yet definitely settled.

**Henderson—Cotton Mill.**—The enlargement to the Henderson Cotton Mills, noted last week, has been built, and seventy-two looms will be put in. Machinery has been ordered.

**Lexington—Flour Mill.**—F. L. Hedrick, M. R. and L. F. Rothrock will establish a 60-barrel flour mill; building three stories high, 30x50 feet, has been erected and machinery ordered.

**Marshall—Flour Mill.**—The Marshall Milling Co. will build a flour mill.

**North Carolina—Gold Mines.**—A company, with capital stock of \$300,000, has been organized recently for the purpose of developing gold mines in Mecklenburg and other counties of North Carolina. The company is known as the Pittsburg Gold Reduction Co., and B. Donovan, of Pittsburg, Pa., is president; J. A. Campbell, of Wheeling, W. Va., vice-president; A. W. Kennedy, of Pittsburg, secretary-treasurer. T. H. B. Hanse will be manager of the company, located at Charlotte, N. C.

**Pilot Mountain—Flour Mill.**—S. H. Venable will equip a short-system flour mill.

**Roanoke Rapids—Oil Mill.**—H. L. and E. T. Driscoll are building sassafras-oil mill, not a cottonseed-oil mill, as recently stated.\*

**Taylorville—Cotton Mill.**—The Taylorville Cotton Mills has completed a stone mill building; machinery will soon be put in; U. I. Alspagh, president.

**Wilmington—Electric-light Plant.**—The Wilmington Gas Light Co. is putting in new machinery, including 300 horse-power engine, dynamo, etc.

#### SOUTH CAROLINA.

**Beaufort—Knitting Mill.**—R. A. Long and George Holmes have incorporated the Beaufort Knitting Mill Co. to manufacture hosiery and knit goods. Capital stock is \$20,000.

**Cades—Saw Mill.**—S. J. Cameron, of Lake City, will erect a saw mill at Cades. Contract for machinery has been let.

**Charleston—Cotton Mill.**—C. O. Witte, representing the bondholders, has bought the Charleston Cotton Mills for \$50,000.

**Cheraw—Maple-syrup Company.**—Frank E. Richards, Leon L. Palmer and others have incorporated the Huntington Maple Syrup & Supply Co., with capital stock of \$10,000, for manufacturing and other purposes.

**Lexington—Water Supply.**—The sinking of an artesian well is about decided upon. W. P. Root can be addressed for information.\*

**Marion—Cotton Mill.**—It is reported that the Ashby Cotton Mills will be enlarged. Mr. A. M. Price, who recently purchased

this mill, has expended nearly \$10,000 on improvements.

**Seneca—Cotton Mill.**—The Seneca Manufacturing Co., recently reported, has awarded contracts for the erection of its buildings. The main building will be 103x300 feet in size, three stories high, and contain 20,000 spindles and 600 looms. Contract for constructing dam and canal has been let to F. G. Power, of Atlanta, Ga.; J. T. Schirmer, president.

**Sumter—Ice Factory.**—E. H. Moses will organize the Independent Ice Co. to erect an ice factory.

#### TENNESSEE.

**Beechbluff—Stave Mill.**—F. P. McCallum will put in a stave mill.

**Celina—Telephone Lines.**—The Obeds River Telephone Co. has been organized, with William Hull, president; C. S. Laishley, secretary, and S. S. Hull, treasurer; purpose, to construct telephone lines in Pickett, Fentress and other counties.

**Chattanooga—Jelly Factory.**—J. Laukota will establish a gelatine jelly factory.

**Harriman—Telephone System.**—Franchise for telephone system has been granted to James P. Browder, of Harriman, and S. L. Browder, of Sweetwater.

**Jamestown—Oil Wells.**—A company is being organized to control and develop 10,000 acres of oil lands in the Tennessee fields. L. T. Smith, of the Phoenix Oil Co., is said to be interested.

**Jonesboro—Electric-light Plant.**—R. F. Wells contemplates the establishment of an electric-light plant.

**Knoxville—Collar Factory.**—James T. Rountree has established a collar factory.

**Manchester—Cannery.**—The proposed cannery will be erected at once, to cost about \$3500. Stock company has been formed. John P. Adams can furnish information. Machinery has been purchased.

**Memphis—Electric-light Plant.**—The city council has appointed a committee to investigate advisability of erecting an electric-light plant. Address the mayor.

**Morristown—Flour Mill.**—S. G. Felknor will change his burr flour mill to the roller system.

**Newport—Chair Factory.**—A. H. Ordway & Co. will establish the chair factory reported last week. A site of eight acres has been obtained for the buildings, etc. Fifty men will be employed at the start.

**Nolensville—Flour Mill.**—W. D. Shelton & Co. will remove their Triune (Tenn.) mill to Nolensville and remodel the machinery; will put in rolls and reclothe reels.

**Riverdale—Saw Mill.**—William Campbell has recently established a saw mill.

**Sweetwater—Electric-light Plant.**—Eastern and home capitalists contemplate the erection of an electric-light plant; W. A. Jones, mayor.

#### TEXAS.

**Abilene—Grain Elevator.**—The Abilene Roller Mills will build a 40,000-bushel grain elevator.

**Commerce—Electric-light, Oil and Ice Works.**—The Commerce Improvement Co. has been organized, with W. W. Rutland, president; O. C. Mulkey, secretary, and W. J. Taylor, treasurer. Capital stock is \$50,000. The company will build an ice factory, electric-light plant and cottonseed-oil mill.

**Corsicana—Mercantile.**—Israel Goldberg and others have incorporated the Corsicana Dry Goods Co., with capital stock of \$20,000.

**Corsicana—Cotton Mill.**—The Commercial Club is in correspondence with an Eastern party regarding the erection of a cotton mill.

**Dallas—Cotton Mill.**—W. H. McGrath, agent of the United Security Co., of Boston, Mass., is endeavoring to induce that corporation to locate a cotton mill in Dallas. A representative of the company has been investigating the field.

**Dallas—Shoe Factory.**—G. H. Schoellkopf will erect and equip a shoe factory.

**Dallas—Cotton Compress.**—Thos. G. Hardie, Wm. T. Hardie and A. F. Hardie have incorporated the Dallas Compress Co., with a capital stock of \$10,000, for the purpose of owning and operating compresses.

**Georgetown—Flour Mill.**—J. F. Towns is improving his flour mill on the Gabriel river near Georgetown. Roller-process machinery is being put in, and the plant will have 125 barrels capacity.

**Grapeland—Coal Mines.**—A company is being formed to develop coal deposits found on K. Walker's farm.

**Hillsboro—Fire Company.**—The Harris Hose Co. has been formed, with Frank Orenbaum, secretary.

**Hillsboro—Oil Wells.**—A company has been formed to drill for petroleum. John F. McKenzie is interested.

**McKinney—Cottonseed-oil Mill.**—The American Cotton Oil Co., of New York city, has decided to locate two more cottonseed-oil mills in Texas. One will be built at McKinney and the other possibly at Taylor.

**New Waverly—Mercantile.**—J. A. Hill and others have incorporated the Hill Mercantile Co., with a capital of \$5000.

**Orange—Publishing Company.**—The Leader Printing Co. has been incorporated by P. B. Curry and others; capital \$10,000.

**Rockdale—Coal Mines.**—The Yoakum Coal Co. will open another coal shaft.\*

**Sabine Pass—Wharves.**—R. P. Clark & Co., of Galveston, have contract for building wharves for Kountze Bros.

**Sabine Pass—Saw Mill.**—A correspondent informs us that F. W. and W. A. Gilchrist, of Alpena, Mich., are interested in erecting a saw mill at Sabine Pass to cut for export trade only.

**Sabine Pass—Wharves, etc.**—Kountze Bros., of Omaha and Sabine Pass, have awarded contract to R. P. Clark & Co., of Galveston, Texas, for the construction of the wharves recently mentioned; will cost about \$50,000. The contract calls for, as previously reported, a slip 180x700 feet, thirty feet deep, and on either side will be wharves eighty-five feet wide and eight feet above ordinary tide. Another wharf 200 feet long will also be constructed. H. Hansen, of Galveston, has contract for driving the piling for the wharves. James O. Osgood, general manager of the Sabine Land & Improvement Co., can be addressed for information regarding the extensive improvements noted and others contemplated at Sabine Pass.

**Seguin—Oil Mill.**—Houston capitalists will make a proposition for the erection of a cottonseed-oil mill. The Board of Trade can be addressed.

**Taylor—Cottonseed-oil Mill.**—The American Cotton Oil Co., of New York city, may possibly build a cottonseed-oil mill in Taylor.

**Temple—Cotton-compress Works.**—C. L. Bessonette and A. K. Dodge, of Temple, Texas; John E. Hollingsworth and Seymour Kisch, of New York city, and Oscar C. Kunz, of Newark, N.J., have incorporated the United States Cotton Compress Co., with capital stock of \$1,000,000, of which \$800,000 has been paid in. The company has filed articles of incorporation at Trenton, N. J., and its purpose is the manufacture of C. L. Bessonette's patent process for baling cotton.

**Velasco—Woodworking Factory.**—L. F. Young will erect a hoop factory.

**Victoria—Ginnery.**—The Farmers & Merchants' Gin Co. has been organized, with F. B. Lander, president; J. H. Schneider, Jr., vice-president, and L. N. Hofer, secretary, to build a cotton gin.

**Waco—Bicycle Company.**—J. P. Hodge and others have incorporated the Texas Flyer Co., with capital stock of \$3000, to deal in bicycles, etc.

**Weatherford—Flour Mill.**—The Parker County Roller Mill Co. will erect a new mill at once.

**Wellborn—Coal Mine.**—F. L. Martin, of Houston, is prospecting coal deposits near Wellborn.

#### VIRGINIA.

**Abingdon—Flour Mill.**—J. W. McBroom will put in a three-stand flour mill.

**Buena Vista—Iron Furnace.**—The Rich Patch Iron Co. is currently reported as to have in contemplation the erection of a blast furnace.

**Farmville—Telephone System.**—A company is being organized to establish a telephone system. Dr. Peter Winston or W. G. Venable can give information.

**Fredericksburg—Telephone System.**—The Rappahannock, Fredericksburg & Piedmont Telephone Co. has been chartered to operate the present system, which it has purchased. W. S. White is president, and H. F. Cresmond, secretary.

**King's Mill—Saw Mill.**—John Stotts, of Ohio, will erect a saw mill at King's Mill.

**Magnolia Springs—Saw Mill.**—John F. Hostetter, of Suffolk, will build at Magnolia Springs a saw mill of 20,000 daily capacity.

**Orange—Spoke Factory.**—F. M. Waite has purchased site and will erect a spoke factory near Orange.

**Roanoke—Soap Factory.**—The Crystal Springs Soap Co. has been incorporated, with capital stock of \$10,000, to manufacture soap; S. K. Campbell, secretary; E. L. Stone, treasurer, and H. B. Loving, manager.

**Staunton—Iron Furnace.**—The Blue Ridge Manganese & Iron Co. is currently reported as to erect a charcoal iron furnace.

#### WEST VIRGINIA.

**Belva—Saw Mill.**—Peppetoe Bros. contemplate the erection of a saw mill.

**Ceredo—Saw Mill.**—The J. H. Millender Lumber Co. will enlarge its mill in the spring.

**Charles Town—Telephone Plant.**—A telephone plant will be installed. For information address Box 70.

**Kendallia—Saw Mills.**—David R. Hill will erect several saw mills to cut the timber on 4000 acres of land.\*

**Keyser—Paint Factory.**—The West Virginia Metallic Paint Co. is about to resume operations, and will make a greater variety of paints.

**Logan and Other Counties.**—Charles E. Wells, of Parkersburg, and others have leased 247,000 acres of oil and gas lands in Logan and other counties.

**Moundsville—Cigar Factory.**—Seamon & Son are preparing a new cigar-factory building for their use.

**Pondgap—Coal Deposits.**—It is reported that O. P. Fairchild will develop coal deposits near Pondgap.

**Wheeling—Tin Mills.**—It is rumored that the Riverside Iron Works will erect a tin mill.

**Wheeling—Electric-light Plant.**—The board of gas trustees is considering proposals for a seventh dynamo for the city plant; other improvements are also being made.

#### BURNED.

**Buchanan, Texas.**—Gus Munzeheimer's saw mill; loss \$8000.

**Ellerslie, Va.**—R. J. Hancock's flour mills. Hazlehurst, Miss.—The Hazlehurst Lumber Co.'s dry-kiln; loss \$2500.

**Hinton, W. Va.**—The Thurmond Coal Co.'s tipple and incline work; loss \$25,000.

**Sanford, N. C.**—J. R. Lane & Sons' planing mill; estimated loss \$8000.

**Springfield, Mo.**—John McKoin's corn granary and machinery.

**St. Louis, Mo.**—The St. Louis Standard Foundry; loss \$10,000; damaged only.

#### BUILDING NOTES.

**Athens, Ga.—Office Building, etc.**—Billups Phinizy will erect a \$5000 cotton warehouse and an office building. The city council is considering the erection of a \$16,000 city hall. Address the mayor.

**Atlanta, Ga.—Store Building.**—Forrest Adair, acting for H. B. Plant, of New York, has let contract to Nicholas Itner for the erection of a store building of brick, stone, iron and plate glass, 80x100 feet.

**Baltimore, Md.—Hospital Building.**—The Baltimore Eye, Ear and Throat Charity Hospital will erect an additional building; said structure to be 75x100 feet, and cost \$12,000.

**Baltimore, Md.—Rectory.**—The Church of the Holy Innocents will build a rectory to cost \$5000; Rev. R. A. Tuft, pastor.

**Baltimore, Md.—Warehouse.**—Contract has been let to John Hiltz for the erection of the Deford warehouse; building to be six stories high, 100x25 feet, after plans by Baldwin & Pennington.

**Baltimore, Md.—Dwelling.**—H. G. Armstrong has awarded contract to R. Gladfelter & Chambers for the erection of a frame dwelling at Sudbrook Park; hot-water heat will be installed; Ghequier & May, architects.

**Beaumont, Texas—Dwelling.**—D. P. Kaufman has completed the plans for a \$14,000 dwelling for H. Hirsch.

**Frederick, Md.—Hotel.**—A company has been organized to build a hotel, to cost \$30,000, on Braddock's Mountain. D. C. Winebrenner and others are interested.

**Hammond, La.—Hotel, etc.**—A company, with capital stock of \$100,000, will be organized to build a hotel and sanitarium, etc. Electric-light and ice plant are contemplated to be installed. For particulars address Dr. E. W. Magann.

**Hermann, Mo.—Courthouse.**—Contract for the erection of the \$50,000 courthouse has been let to H. J. Wallau.

**Humboldt, Tenn.—Church.**—R. H. Hunt, of Chattanooga, is preparing plans for a church to be built, at a cost of about \$10,000, in Humboldt; Rev. R. P. Mahon, pastor.

**Lexington, N. C.—Hotel.**—Cecil & Harding, of Charlotte, N. C., have contract to erect the new hotel at Lexington. C. C. Hook, of Charlotte, prepared the plans.

**Lexington, N. C.—Hotel.**—W. G. Penry and associates have contracted with Cecil & Harben for the erection of a hotel. Plate glass, window glass, locks, hinges, slate, etc., will be wanted. Address the contractors.

**Louisville, Ky.—Cotton-mill Building.**—The Louisville Cotton Mill Co. is now taking bids on the erection of a mill building three stories high, 78x115 feet.

**Mayfield, Ky.—Opera-house and Hotel.**—The erection of an opera-house and a hotel is talked of. The Western Kentucky Land Co. can probably give information.

**Memphis, Tenn.—Office Building, etc.**—W. C. and C. F. Johnson will erect a three-story office, etc., building, 25x148 feet, of brick, stone and terra cotta, at a cost of \$20,000; will have steam heat. Alsop & Johnson prepared plans.

**McMinnville, Tenn.—Courthouse.**—Contract has been let to B. M. Nelson, of Decatur, Ala., for the erection of courthouse at \$12,750.

**Monroe, La.—Church.**—R. H. Hunt, of Chattanooga, Tenn., is preparing plans for a Methodist church, to cost \$12,000, to be built at Monroe; Rev. E. N. Evans, pastor.

**New Orleans, La.—Hotel.**—The St. Charles Hotel Co. will build an addition of 150 rooms, eight stories high, after plans by Sully, Burden & Stone.

**Norfolk, Va.—Warehouses.**—It is said that the Southern Railway Co. purposes erecting two more large warehouses at Pinner's Point; C. H. Hudson, chief engineer, Washington, D. C.

**Paducah, Ky.—Temple.**—The erection of a \$50,000 temple is contemplated. B. B. Davis is preparing plans.

**Tulahoma, Tenn.—Church.**—Bids are now being received on the erection of a church building for St. Barnabas congregation, to cost about \$10,000. Rev. Chas. T. Wright, rector. R. H. Hunt, of Chattanooga, Tenn., is the architect for the building.

**Taylorville, N. C.—Courthouse and Jail.**—A bill will be introduced in the legislature providing for an extra tax to provide funds for the erection of a courthouse and jail by Alexander county. Address the county clerk.

**Washington, D. C.—Rectory.**—Item of rectory reported was by error. See under Baltimore, Md., above.

**Washington, D. C.—Dwellings.**—Mary E. Driggs has let contract to Henry F. Getz for a \$7000 dwelling; furnace heat. The Capital Construction Co. has commenced the erection of its six-story, 101x70-foot apartment house; Peter Fersinger has contract. R. H. Hood, engineer, has made a proposition to erect a \$200,000 fire-proof building on 15th street. William J. Palmer will prepare plans for the new Ebenezer Church building.

**Wedowee, Ala.—Courthouse.**—A bill has been introduced in the legislature to authorize the county commissioners of Randolph county to issue \$20,000 in bonds for building a courthouse.

## RAILROAD CONSTRUCTION.

### Railways.

**Americus, Ga.—Prest.** John S. Williams, of the Georgia & Alabama, advises the Manufacturers' Record that the extension the company is building will extend from Fitzgerald south to Ocilla, about ten miles. It will be completed about July 1. Cecil Gabbert, at Americus, is manager.

**Atlanta, Ga.**—It is stated that the Atlanta & West Point has bought 1500 tons of 75-pound rails with which to relay a section of its line. George C. Smith is president.

**Atlanta, Ga.**—It is stated that the Southern will place most of the 25,000 tons of steel

rails recently purchased on its line between Washington and Atlanta.

**Augusta, Ga.**—It is stated that the Augusta Southern is considering plans for a connection with several roads in the central portion of the State. James U. Jackson, at Augusta, is president.

**Baltimore, Md.—The Baltimore, Cincinnati & Western Railroad Co.** has been formed, it is stated, by Baltimore and New York parties, and has selected offices. Messrs. Gaus & Haman, Equitable Building, are the attorneys for the company.

**Boyle, Miss.—The Boyle & Sunflower River Railway** has been completed to Kimble Lake. It will be used largely for hauling timber. The line is about thirty miles long. C. E. Boyle is general manager.

**Chattanooga, Tenn.**—It is reported that the Chattanooga Southern is considering an extension of its line in Alabama. Surveys have recently been made, it is reported, in St. Clair county, in that State. M. F. Bonzano, at Chattanooga, is general manager.

**Dallas, Texas.**—It is stated that Prest. E. H. R. Green, of the Texas Midland, has purchased 20,000 tons of steel rails for its extension to Dallas, and that the Dallas Terminal Co. is about to buy 3000 tons to build its line in connection with the Midland. [The extension would be from Greenville to Dallas and Waco probably, 130 miles in all, the quantity of rails mentioned being sufficient to cover this distance.—Ed.] Mr. Green's address is Terrell, Texas.

**Hillsboro, Texas.**—It is now announced that the Texas Midland is planning an extension from Hillsboro to Sabine Pass. E. H. R. Green, at Terrell, Texas, is president of the company.

**Kingwood, W. Va.**—It is reported that work has been begun on the West Virginia Northern Railroad, which is to be built along the Cheat River valley to connect with the Kingwood, Tunnelton & Fairchance road. The new line will be about fifty miles in length altogether. J. J. and J. F. Stoer, of Philadelphia, are interested.

**Marshall, Texas.**—L. W. Lloyd, one of the promoters of the Brazos & Rio Grande road, writes the Manufacturers' Record that sixty miles of the line will be built at first by the contractor, H. B. Craig, 86 La Salle street (Oxford Building), Chicago, Ill. The road is to extend through the Hamilton county coal-fields and is to terminate eventually at a point on the Rio Grande.

**Montgomery, Ala.**—The stockholders of the Mobile & Ohio have ratified the construction of the proposed line from Montgomery to Columbus, Miss., with branches to the Blocton and Warrior coal-fields. J. W. Woolfolk, of Montgomery, it is understood, will be the principal contractor for the work.

**Ocala, Fla.**—The Silver Springs & Western Company announces that its line has been completed and is in operation between Ocala and Silver Springs, six miles. The officers of the company are as follows: President, H. L. Anderson; vice-president, Frank A. Teague, and general manager, Morris Jarrett.

**Petersburg, Va.**—It is reported that a company has been formed to build the Virginia & Carolina road. It was laid out and work begun several years ago between Petersburg and a point on the Raleigh & Gaston division of the Seaboard Air Line near Ridgeway, N. C. The right of way lies through Dinwiddie, Brunswick and Mecklenburg counties in Virginia. The distance is about sixty miles.

**Shreveport, La.**—It is reported the Kansas City, Pittsburg & Gulf Railroad will be completed and in operation from Kansas City to Shreveport early in March. About fifteen miles of line remain to be completed.

**St. Andrew's Bay, Fla.**—The St. Andrew's Improvement Association, J. C. Lipes, president, is planning the construction of an electric line in that place.

**Starke, Fla.**—The Atlantic, Suwannee & Gulf road has been completed from Starke to Alachua, Fla., thirty-two miles. It is reported that the Ambler Lumber Co., of Jacksonville, Fla., which owns the road, will extend it to the Suwannee river by way of High Springs, Fla. The extension will be about twenty-five miles in length.

**Texarkana, Ark.**—The Texarkana & Shreveport will be extended about ten miles in the direction of Shreveport, it is stated. Rails have been purchased for the extension. The road has been completed to Dodridge, twenty-nine miles. B. Collins is general manager.

**Winston-Salem, N. C.**—The Winston-Salem Southbound Co. has the following incorporators: F. H., J. W. and H. E. Fries, W. A. Lemley, Lindsay Patterson, A. E. Holton, C. A. and R. J. Reynolds, E. B. Jones, J. C.

Baxter, J. A. Gray, C. B. Watson, J. W. Harris, C. H. Nogle. The Messrs. Fries and several other of the incorporators are of Winston-Salem. The line is to be practically an extension of the Roanoke & Southern division of the Norfolk & Western and will connect with the Seaboard Air Line.

**Washington, D. C.—The White-Crosby Co.** of Baltimore, has secured the contract for the overhead electrical work of the Washington section of the Columbia & Maryland line. The contract covers two and one-half miles of road.

**Washington, D. C.**—It is stated the Capital Traction Co. will probably extend its line to Chesapeake Beach, and that surveys are to be made immediately. A. E. Randle is president of the company.

**Womelsdorf, W. Va.**—About four miles of the branch of the Roaring Creek & Charleston, it is reported, have been completed by Henry C. Terry, of Philadelphia, trustee. An effort is to be made to have the court order an issue of receiver's certificates to complete it. Cassius L. Dixon is receiver.

### Street Railways.

**Baltimore, Md.**—It is stated the Central Passenger Railway Co. will complete its proposed extensions of trolley lines to Clifton Park and on the Belair road by June 1. George Blakistone, corner Lombard and Baltimore streets, is president.

**Corsicana, Texas.**—Woodford Brooks, of Fort Worth, Texas, and others are considering the construction of an electric line about five miles long.

**Durham, N. C.**—It is reported that Boston parties are interested in the proposed electric railroad from East to West Durham, a distance of about four miles.

**Hammond, La.—Dr. E. W. Magann** and others are interested in a proposed electric railroad from the hotel and sanitarium to be built near Hammond. This line will connect the sanitarium with the railroad station.

**Huntsville, Ala.—The Huntsville & Monte Sano Improvement Co.** has been authorized to increase its capital to \$1,000,000 to construct electric railway lines. Address the president as above.

**Pine Bluff, Ark.—C. H. Triplett, M. G. Bridges,** of the Little Rock Trust Co., and others have purchased the franchises to build an electric line in Pine Bluff, and it is stated will construct a road this year. They may be addressed at Little Rock, Ark.

**St. Louis, Mo.—The People's Railroad,** it is reported, has completed arrangements to change its cable to an electric system. Charles Green is president.

## Machinery, Proposals and Supplies Wanted.

**Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The MANUFACTURERS' RECORD has received during the week the following particulars as to machinery that is wanted.**

**Air Compressor.**—Watkins & Hardaway, Birmingham, Ala., are in the market for an eighty to 100 horse-power belt-driven air compressor; second-hand, if in good condition, will do.

**Bicycle Supplies.**—E. C. Prescott, secretary D. Clint Prescott Co., Marinette, Wis., wants addresses of manufacturers of chilled cast-iron balls for bicycle bearings.

**Boiler.**—G. W. & C. M. Wall, Wallbury, N. C., are in the market for a 100 horse-power boiler.

**Boiler.**—O. M. Smith & Co., Tom's Brook, Va., is in the market for a fifteen to twenty horse-power fire-box boiler, second-hand.

**Boiler and Engine.**—See "Mining Plant."

**Boiler and Engine.**—Cotton-mill company at Poulan, Ga., will buy boiler and engine. Address J. F. Wilson.

**Boiler and Engine.**—The Adams-Thornhill Manufacturing Co., Lynchburg, Va., wants prices on a seventy-five horse-power engine and boiler.

**Boiler and Engine.**—Lee H. Todd, Atlanta, Ga., wants prices on twenty-five horse-power portable fire-box boiler and on twenty-five horse-power engine.

**Boiler and Engine.**—The Atlanta Textile Manufacturing Co., 34 East Alabama street, Atlanta, Ga., wants estimates on forty horse-power engine and fifty horse-power boiler.

**Boiler and Engine.**—It is reported that David R. Hill, Kendalia, W. Va., will want a thirty horse-power boiler and a twenty-five horse-power engine, saw-mill outfit, etc.

**Boiler and Engine.**—H. L. Driscoll, Roanoke Rapids, N. C., is in the market for a thirty horse-power boiler and a ten horse-power engine.

**Bridge.**—Gonzales county, Texas, will adopt plans April 8 and receive bids for the construction of an iron bridge or wire bridge. For further particulars address W. W. Glass, county judge, Belmont, Texas.

**Bridges.**—Burleson county, Texas, will open bids March 11 for the construction of two steel bridges; one with spans of fifty-four feet, wooden approaches of twenty-two feet, thirteen feet from channel to top of bridge floor; other bridge of 26-foot span, wooden approaches fourteen feet each, fourteen feet from bed of creek to top of bridge floor. For particulars address F. G. Banks, county judge, Caldwell, Texas.

**Bridges.**—De Witt county, Texas, will open bids March 8 for the construction of two bridges of iron. Address C. A. Summers, county judge, Terryville, Texas.

**Building Materials.**—Wanted, plate glass, window glass, locks, hinges, slate, etc., for hotel building. Address Cecil & Harben, contractors, Lexington, N. C.

**Chair Machinery and Supplies.**—G. N. Owen, Gainesville, Ga., wants to buy machinery for chair manufacturing, and rattan, cane and other supplies.

**Conveying Plant.**—See "Road Machinery."

**Cotton-mill Machinery.**—The Atlanta Textile Manufacturing Co., 34 East Alabama street, Atlanta, Ga., wants estimates on twenty looms, thirty shuttles, 40-spindle spooler, two warpers or beamers, two tape winders, twenty quillers, one dresser and starcher, one calendar, looms to weave stay tape and shoe webbings up to three-quarters of an inch wide.

**Cotton-mill Machinery.**—S. D. Cross, Rock Hill, S. C., wants information and prices on braiding machinery.

**Dam Construction.**—W. J. Dickey & Sons, 16 Light street, Baltimore, Md., want to obtain estimates on the repairing of a wooden dam.

**Dredge and Dyke.**—Proposals will be opened March 12 for furnishing materials and constructing jetties at Winyaw Bay, S. C.; for building steam pump dredge and for completing mud dyke on South Island, S. C. Address Frederic V. Abbott, U. S. Engineer's Office, Charleston, S. C.

**Dredges.**—Proposals will be opened March 8 for two hydraulic dredges. Address Thos. H. Handbury, Custom House, St. Louis, Mo.

**Electrical Apparatus.**—Apparatus for electrical engineering department in University of Georgia will be purchased by Prof. A. H. Patterson, Athens, Ga.

**Electrical Machinery.**—See "Railway Equipment."

**Electric-light Plant.**—Estimates wanted on electric machinery, dynamos, etc., for plant for lighting town of 5000 inhabitants. Address J. B. Greever, of town committee, Graham, Va.

**Electric-light Plant.**—George H. Lowell (contractor), Dalton, Ga., wants estimates on electric-light plant, arc-light dynamo, 150 to 200 lights, 2000 candle-power each; one incandescent, 400 lights; also wants estimates on plant of one six horse-power motor, one dynamo to run machinery and give sixty incandescent lights.

**Fire Equipment.**—A fire engine will be purchased by company just organized. Address George W. McCordell, secretary, Williamsport, Md.

**Foundry Machinery.**—See "Stove Foundry."

**Gasoline Engine.**—Thomas H. Bass, Newport News, Va., wants a two or three horse-power gasoline engine for 25-foot boat, new or second-hand.

**Gasoline Engines.**—C. W. Hicks, Melrose, Ga., wants addresses of makers of light gasoline engines.

**Glass and Furniture.**—Contracts will be let for furnishing glass and furniture for church. Address building committee M. E. Church, Shelbyville, Ky.

**Heating Apparatus.**—Contract for heating apparatus for church building will be let. Address building committee M. E. Church, Shelbyville, Ky.

**Holisting Plant.**—See "Mining Machinery."

**Knitting Machinery.**—John H. Barnes, P. O. Box 165, Marietta, Ga., wants to cor-

respond with makers of automatic knitting machines for seamless hose.

Machine Tools.—The H. M. Whitney Manufacturing Co., St. Louis, Mo., 1826 Olive street, is to buy planers, lathes, grinding and corrugating machinery, etc., for flour-mill machine works.

Mining Machinery, etc.—The Yoakum Coal Co., Rockdale, Texas, will be in the market for hoisting engine, boiler, wire rope, mine cars, T rails, etc.

Mining Machinery.—The Eureka Gold Mining Co., Knoxville, Tenn., hopes to need mining machinery in the near future. Address care of S. T. Logan.

Paper-lumber Manufacturers.—H. Butikofer, Sioux Falls, S. D., wants addresses of manufacturers of paper lumber for portable houses.

Paving Brick.—Proposals will be opened March 1 for furnishing 200,000 vitrified brick for paving purposes. Address W. H. Hornish, clerk, Wheeling, W. Va.

Pipe.—Proposals will be opened April 1 for furnishing cast-iron water pipe to Newport, Ky., for one year. Address John Surran, superintendent water works.

Printing Press.—G. W. & C. M. Wall, Wallbury, N. C., are in the market for a printing press to print on wood (cigar-box).

Pumping Engine.—Proposals will be opened March 22 for furnishing Lafayette, Ind., with a vertical high-duty compound condensing pumping engine of 6,000,000 gallons (U. S.) capacity per twenty-four hours; forms of contract furnished; William Folckemer, trustee.

Railway Equipment.—The Gainesville Iron Works, Gainesville, Ga., wants prices on good second-hand eight or ten-pound rails, in good condition.

Railway Equipment.—See "Mining Machinery."

Railway Equipment.—G. S. Baxter & Co., Haylow, Ga., may possibly want a locomotive. If it is decided to buy, one of twenty-five to twenty-seven tons will be needed; to have drivers of not over forty-eight inches, 14-inch cylinder, wood burner, large tanks for water and wood, steam brakes either on drivers or tank or both.

Railway Equipment (Electrical).—J. C. Lipes, St. Andrew's Bay, Fla., wants to correspond with makers and contractors of electric-railway equipments.

Refrigerator.—The Penty Provision Co., Calvert and Saratoga streets, Baltimore, Md., wants a large refrigerator; sectional one preferred; capacity from two to five tons.

Revetment Work.—Proposals will be opened March 3 for dredging a portion of the Belize river and the construction of 500 feet of revetment work in Honduras. Plans can be seen at office of Macheca Bros., 125 Decatur street, New Orleans, La.; B. W. Bager, Colonel engineer, Belize, Honduras, to open the bids.

Road Machinery.—Information and estimates wanted on light rock-crushing plant, fairly portable, with or without boiler and engine; also on light conveying plant, cable or tramway, for moving sand, gravel, stone, etc., a distance of from 150 yards to one-half or three-quarters of a mile. Address C. H. Scott, road supervisor, Warrenton, N. C.

Saw Mill.—It is reported that David R. Hill, Kendalia, W. Va., will want a saw-mill outfit complete.

Saw Mill.—Lee H. Todd, Atlanta, Ga., wants prices on band-saw mill to cut 5000 feet daily.

Sewer Pipe.—Proposals will be opened March 1 for furnishing city of Wheeling, W. Va., sewer pipe during 1897; specifications on application. Address W. H. Hornish, clerk.

Shoe-factory Machinery.—The J. G. Hynds Manufacturing Co., Gainesville, Ga., wants to buy new or second-hand machinery for making shoe cartons; also wants machinery for making horse-collars.

Stove Foundry.—A. Weiskittel & Son, Baltimore Md., will require machinery for grinding and preparing enamel, modern foundry appliances, etc., for stove foundry.

Telephone Equipment.—The Florida Union Telegraph & Telephone Co., Titusville, Fla., wants to buy long-distance telephones; may need some wire also; D. L. H. Gauldin, president.

Water-wheel.—The Adams-Thornhill Manufacturing Co., Lynchburg, Va., wants prices on a seventy-five horse-power water-wheel.

Water Wheel.—James M. Harrison, Montezuma, Ga., wants to know what power would 300 gallons of water give with 30-foot elevation, using a Pelton water wheel. A wheel will be wanted.

Water Works.—Estimates are wanted on engines and boilers and pumps for plant to furnish 300,000 to 500,000 gallons of water daily. Address J. B. Greever, town committee, Graham, Va.

Water Works.—The city of Warren, Ark., will contract for water works; will want piping, hose, hydrants, etc. Address W. J. Savage.

Well-drilling Machinery.—W. P. Roof, Lexington, S. C., wants correspondence from well-drillers. Makers of outfits might possibly find this also of value.

Woodworking Machinery.—The Ohio Valley Pulley Works, Maysville, Ky., wants to communicate with manufacturers of machinery for making spools, bobbins, shuttles, etc.

Woodworking Machinery.—See "Chair Machinery."

Woodworking Machinery.—J. C. Jackson & Sons, Wilsonville, Ala., are in the market for a band resaw for six-inch siding.

#### Information Wanted.

Mr. Jas. M. Harrison, of Montezuma, Ga., writes:

"I would like very much for you to answer the following question either by letter or through the medium of your valued publication: How much power would 300 gallons of water give with thirty feet elevation, using a Pelton type of water-wheel, and where could wheel be purchased?"

#### TRADE NOTES.

To Test Lathe Centres.—Among the latest devices of the Brown & Sharpe Manufacturing Co., of Providence, R. I., are a lathe test indicator adapted to testing lathe centres, shafting or other work held between centres and to setting centrally any point or hole in a piece of work to be operated upon in a lathe or upon a faceplate, and a universal bevel protractor of many applications where angles are to be laid out or established.

Belts Give Satisfaction.—For six years the Southern Electric Light & Power Co., of Philadelphia, has been using the belting manufactured by Charles A. Schieren & Co., of Philadelphia. The belts were used in fitting up recently the station at Gray's Ferry road and Carpenter street, and the company has written to the manufacturing firm commanding the fine quality of the belting and ordering two 64-inch three-ply ones, each ninety-four and eight-twelfths feet.

Contract for Government Jetty Work.—The Georgia Quincy Granite Co., of Macon, Ga., has obtained the contract for furnishing jetty stone for the government work in Cumberland, S. C. The contract calls for about 150,000 tons, or approximately 10,000 carloads. Shipments of the material will begin about June 1 next, and continue over a period of two and one-half years. Mr. T. E. Artope, manager of the company, says that the company has its quarries fully equipped with all the latest appliances for quarrying, conveying, etc.

Wateree's Water-Power.—Camden, S. C., is one of the most attractive towns in the South. Its importance as a manufacturing centre will be vastly increased when the water-power of the Wateree river has been harnessed. Years ago the Wateree canal was constructed by the State to convey boats around the rapids in the river. The advent of the railroads made the boats useless, and the State, by act of legislature, ceded all the rights in the canal to the owners of lands through which it passes. It is four miles long, and though the earthwork shows the wear of time, the massive granite locks are still in good repair, and comparatively little money will be required to develop the vast water-power of the canal.

The fall is fifty-one feet, and the amount of water is the whole of the Wateree river or any part of its volume that may be desired. The rise of the river in time of floods never affects the canal. The river is navigable by steamboat to the rocks, three miles below the falls. The canal is four miles from the railroad and seven miles from the city, where labor and transportation facilities are abundant. Mr. S. Logan Lang, of Camden, S. C., is interested in the water-power development.

#### Modern Marine Machinery.

Complete outfit in either single or twin screw, side or stern paddle wheel machinery, built by Marine Iron Works, No. 9 Dominick street, Chicago. Catalog free.

## FINANCIAL NEWS.

The Manufacturers' Record invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

No advertisements but those of a financial character will be accepted for the following page.

#### Virginia Bankers.

At the annual meeting of the Virginia Bankers' Association, R. W. Burke, of Staunton, was elected president; W. H. Lambert, of Alexandria; P. V. D. Conway, of Fredericksburg; S. G. Wallace, of Richmond; W. M. Hill, of Richmond; M. S. Quarles, of Richmond; P. Miller, of Lynchburg; J. H. Toomer, of Portsmouth; W. H. Doyle, of Norfolk, and J. A. Willett, of Newport News, vice-presidents, and H. A. Williams, of Richmond, secretary and treasurer.

The association adopted sentiments in favor of the repealing of the 10 per cent. tax on all State bank-note issues, and favoring the issue of national bank notes to the amount of the par value of bonds deposited in each bank as security.

#### Northern Central Railway.

The forty-second annual report of the directors of the Northern Central Railway Co. shows that that corporation has felt the effects of the general depression of the past three years. For the year ended December 31, 1896, its gross earnings were \$6,286,602.02, a decrease from 1895 of \$219,425.84, and its net earnings were \$1,643,497.01, a decrease of \$264,011.77. At the same time the expenses increased \$44,585.93. The number of passengers decreased 263,603, the earnings from that source fell off \$38,935.43, and the rate per passenger per mile was reduced from 2.182 cents to 2.140. There was a decrease of tonnage of 352,062, of earnings from that source of \$143,357.81, and of rate .023 of a cent. There were 524,962 fewer tons of coal transported, and 8,656,380 more bushels of wheat.

Notwithstanding this falling off, the company has continued its policy of improvements, as indicated by the use of 4217 tons of new steel rails and 261,636 crossties for renewals and repairs, the addition to the equipment of 150 box cars and 164 gondolas, the improvement by dredging of the terminals at Canton so as to give twenty-seven feet of water at low tide, the renewal of piers and the opening of a new freight-yard at Chase street, Baltimore.

Dividends amounting to 7 per cent. were paid during the year, and a fair surplus carried to the credit of profit and loss.

Allusion is made in the report to the death of President Roberts and other officials.

#### Official Bank Changes.

Third National Bank of Atlanta, Ga.—Frank Hawkins, president.

First National Bank of Paducah, Ky.—Robert L. Reeves, president.

First National Bank of Georgetown, Ky.—G. B. Brown, vice-president.

First National Bank of Franklin, La.—Joseph Birg, second vice-president.

State National Bank of New Orleans, La.—C. H. Culbertson, vice-president.

Germania National Bank of New Orleans, La.—Henry Abraham, vice-president.

National Bank of Asheville, N. C.—W. T. Weaver, president; W. B. Williamson, cashier.

Farmers and Mechanics National Bank of Westminster, Md.—David Stoner, vice-president.

Second National Bank of Ashland, Ky.—Charles Kitchen and T. S. Newman, vice-presidents.

National Farmers and Planters' Bank of Baltimore, Md.—Richard B. Sellman, cashier pro tem.

#### New Corporations.

The Bank of Chase City, Va., is preparing to open a branch at Keysville, Va.

The banking firm of McKee & Redhead has opened for business at Centreville, Miss., with \$20,000 capital.

The Raily & Bro. Banking Co., of St. Louis, has been incorporated by John M. Raily and others, with \$20,000 capital. The Colonial Savings & Loan Co. has been formed at Louisville, Ky., with \$25,000 capital, by John H. De Witt and others.

The L. A. Coquard Brokerage & Investment Co., of St. Louis, Mo., has been incorporated, with \$50,000 capital, by L. A. Coquard and others.

The Citizens' Bank, of Midlothian, Texas, has been formed, with W. L. Hawkins, president; W. M. Stroud, vice-president, and R. M. Craig, cashier.

The Bank of Wrightsville, Ga., recently organized with \$25,000 capital, has opened for business, with the following officers: T. J. Arline, president; Dr. J. M. Page, vice-president; W. W. Cook, cashier.

#### New Securities.

James M. Bohart will receive bids until March 6 for the issue of \$24,000 in 6 per cent. bonds to be made by the town of Bentonville, Ark.

Bids will be received by Hon. John A. McMillan, comptroller, until March 15 for \$50,000 in 5 per cent. bonds of the city of Knoxville, Tenn., to be used for improvements.

The city of Montgomery has awarded its issue of \$150,000 in 5 per cent. bonds to Messrs. Sperry, Jones & Co., of Baltimore, and A. M. Baldwin. The bid was in the aggregate \$154,545. This is the first issue of 5 per cent. bonds placed on the market by the city, and experts consider the price offered as very good.

#### Dividends and Interest.

The Algiers Water Works Co., of New Orleans, La., has declared a dividend of 1 per cent.

The Virginia-Carolina Chemical Co., of Richmond, has declared a dividend of 1 per cent. on its common stock.

#### Financial Notes.

The Third National and Chemical Banks of St. Louis have determined to consolidate, the business of both being done by the Third National Bank under its present title.

The following officers were elected at the annual meeting of the Bank of Goodlettsville, Tenn.: J. O. Bass, president; R. A. Cartwright, vice-president; B. F. Myers, cashier; S. H. Wilhoite, assistant cashier.

The Mercantile Trust & Deposit Co. of Baltimore announces that it is now prepared to receive Roanoke & Southern reorganization certificates for conversion into securities according to the plan of reorganization. The new bonds are for \$500 and \$1000 each, and the shares for \$100 each.

Ginning and Baling.—A unique feature of the latest catalogue of the Thomas Manufacturing Co., of Little Rock, Ark., appears in the illustrations. They show not only the ginning and baling machinery manufactured by the company, but also different types of outfits complete and ready for operation. During the ten years of its existence the company has aimed to produce new and improved machinery, simple, durable and capable.

## FORTY-SECOND ANNUAL REPORT.

OFFICE OF NORTHERN CENTRAL RAILWAY CO.

Baltimore, February 17, 1897.

To the Stockholders of the Northern Central Railway Company:

The Directors respectfully submit the following report of the operations of the main line and of the railroads now operated under lease or otherwise by this Company for the year ending December 31, 1896.

### EARNINGS.

From freight . . . . .	\$4,767,227 35
" passengers . . . . .	1,004,518 54
" express . . . . .	118,089 77
" mails . . . . .	92,381 84
" miscellaneous . . . . .	214,484 52

Total earnings . . . . .

\$6,286,602 02

### EXPENSES.

For maintenance of way and structures . . . . .	\$825,706 52
" maintenance of equipment . . . . .	1,029,647 82
" conducting transportation . . . . .	2,668,654 16
" general expenses . . . . .	119,096 51

Total expenses . . . . .

4,643,105 01

Net earnings . . . . .

\$1,643,497 01

The gross earnings from operation of the Northern Central Railway and railroads controlled by it, for the year ending December 31, 1896, were . . . . . \$6,286,602 02

And for the previous year . . . . . 6,506,027 88

Showing a decrease in gross earnings of . . . . .

\$219,425 84

The expenses for the same period were . . . . .

\$4,643,105 01

And for the previous year . . . . . 4,598,519 08

Showing an increase in expenses of . . . . .

\$44,585 93

The net earnings for the same period were . . . . .

\$1,643,497 01

And for the previous year . . . . . 1,907,508 78

Showing a decrease in net earnings of . . . . .

\$264,011 77

### INCOME ACCOUNT.

In addition to the net earnings as above stated . . . . .	\$1,643,497 01
There was received from dividends and interest . . . . .	324,384 00
Interest on equipment . . . . .	27,928 95
Proportion of loss in operating Elmira and Canandaigua divisions received from Pennsylvania Railroad Co. . . . .	47,762 24

\$2,043,572 20

From which deduct the following amounts:

Rental Shamokin Valley & Pottsville Railroad . . . . .	\$202,003 34
Rental Elmira & Williamsport Railroad . . . . .	154,381 26
Rental Lykens Valley Railroad—	
Summit Branch Railroad . . . . .	\$18,923 60
Lykens Valley Railroad . . . . .	24,402 72

—

43,326 32

Interest on equipment—

Shamokin Valley & Pottsville Railroad . . . . .	\$4,568 51
Elmira & Williamsport Railroad . . . . .	15,110 45
Elmira & Lake Ontario Railroad . . . . .	17,112 27

—

36,701 23

—

436,592 15

Deduct—

Interest on funded debt . . . . .	\$770,705 00
Interest on real-estate mortgages and ground rents . . . . .	20,887 06
Interest on car trusts . . . . .	43,039 79
Interest account, exchange, etc . . . . .	416 76
Taxes . . . . .	61,277 86
Sundry expenditures . . . . .	10,340 04
Amount advanced Mineral Railroad & Mining Co. for losses in operation in 1896 . . . . .	47,000 00
Amount advanced to Elmira & Lake Ontario Railroad Co.—	
For interest . . . . .	\$25,020 26
For taxes, etc . . . . .	15,426 76

—

40,456 02

—

\$1,003,122 53

Balance to credit of Income Account for 1896 . . . . .

\$603,857 52

Out of which were paid cash dividends of 7 per cent . . . . .

526,267 00

—

\$77,590 52

Leaving amount to be transferred to credit of Profit and Loss Account for 1896 . . . . .

\$1,981,788 61

Amount to credit Profit and Loss Account, December 31, 1895 . . . . . \$1,744,395 27

237,393 34

—

1,981,788 61

Add net profit realized on investments . . . . .

—

Balance to credit of Profit and Loss Account, December 31, 1896 . . . . . \$2,059,379 13

The total number of passengers, irrespective of the division over which they were carried, the passenger mileage, and the revenue derived from the same, on all lines of the Company, were:

	Passengers	Earnings.	Rate per passenger per mile.
1896 . . . . .	3,848,833	\$1,156,008	2.140
1895 . . . . .	4,112,526	51,961,285	2.182
Decrease . . . . .	263,693	795,277	.042
Percentage . . . . .	6.41	1.53	3.44
			1.02

The total number of tons, irrespective of the divisions over which they were moved, and tonnage mileage, and the revenue from the same, on all lines of the Company, were:

	Tons.	Earnings.	Rate per ton per mile.
1896 . . . . .	13,253,431	\$85,552,906	.538
1895 . . . . .	13,605,493	875,681,749	.561
Increase . . . . .		9,871,247	—
Decrease . . . . .	352,062	\$143,357 81	.023
Percentage . . . . .	2.558	1.127	2.919
			4.100

The aggregate movement of bituminous coal was 2,616,598 tons, a decrease of 103,618 tons, and of anthracite coal 3,874,430 tons, a decrease of 421,344 tons. The tonnage of both classes amounted to 6,491,028 tons as against 7,015,900 for the preceding year, being a decrease of 524,962 tons in the actual aggregate of coal transported, irrespective of the number of divisions over which it was moved.

The amount of grain received at the elevators at Canton, as compared with the previous year, was:

1896 . . . . .	14,662,337 bushels.
1895 . . . . .	6,005,967 "
An increase of . . . . .	

The amount of grain received at the local elevator, No. 2, in the city of Baltimore during the year was 1,441,223 bushels, as against 1,708,828 bushels in 1895.

The main items of tonnage, besides coal and grain, were lumber, iron ore, manufactures of iron, and petroleum.

The tonnage mileage shows an increase of 1.13 per cent., while the gross receipts from freight traffic show a decrease of 2.92 per cent.

The average receipts from freight on your main line, leased lines and branches, were .538 cent per ton per mile—a decrease of .023; the cost per ton per mile was .400 cent, an increase of .002 cent; and the net profit per ton per mile was 1.38 mills, as against 1.63 mills for 1895.

The passenger business for the year shows a decrease in mileage of 1.53 per cent., while the revenue received therefrom decreased \$38,935.43, or 3.44 per cent. As appears from the preceding tables, there was a loss per passenger per mile of .10 mill, as compared with a profit in 1895 of .41 mill.

The net charges to Capital Account for the year amounted to \$249,163.90, made up as follows:

EQUIPMENT.	
On account of 250 long gondola cars . . . . .	\$104,126 15
150 box cars . . . . .	70,912 50
\$184,038 65	
CONSTRUCTION AND REAL ESTATE.	
Freight yards, Baltimore . . . . .	\$28,914 25
Freight yard, York . . . . .	9,058 90
Principal sum of sundry ground rents capitalized . . . . .	29,352 10
\$67,325 25	
Less amount credited for sale of property in Shamokin . . . . .	2,200 00
\$65,125 25	

Mr. Charles E. Pugh was elected a director to fill the vacancy thus created. While fully appreciating the loss to the service through the deaths already mentioned, the Board feel that the event most deeply to be deplored is the death of your late President, Mr. George B. Roberts, on the 30th of January, 1897. The Company has thus been deprived of a wise counsellor, a faithful overseer, and an able executive, who, during the seventeen years in which he was your President, devoted to your interests a matured and exceptional experience in railway administration, that significantly contributed to the welfare and prosperity of your property.

Mr. Frank Thomson, formerly First Vice-President, was elected President to fill the vacancy caused by the death of Mr. Roberts, and in accordance with the revised organization, the following officers were also elected: Mr. John P. Green, First Vice-President; Mr. Charles E. Pugh, Second Vice-President; Mr. Sutherland M. Prevost, Third Vice-President.

Mr. J. B. Hutchinson was appointed General Manager to fill the vacancy caused by the election of Mr. Prevost as Third Vice-President; Mr. Michael Trump, General Superintendent of Transportation, vice Mr. J. B. Hutchinson, appointed General Manager; Mr. William H. Joyce, Freight Traffic Manager; Mr. Samuel Rea, First Assistant, and Mr. William A. Patton and Mr. E. T. Postlethwaite additional Assistants to the President.

Mr. W. B. McCaleb was appointed Superintendent of the Shamokin Division December 10, 1896, to fill the vacancy caused by the transfer of Mr. Almet E. Reed to the Altoona Division of the Pennsylvania Railroad.

The following statements of the Treasurer accompany this report: Income Account, General Financial Statement, and Statement of Bonds and Stocks owned by the Company. There is also appended to the report the Statement of the Insurance Fund. Your attention is also called to the reports of the General Manager and Auditor, showing in detail the operations of the year.

It gives the Board great pleasure to acknowledge the zeal and fidelity displayed by the various officers and employees in the discharge of their duties during the past year.

By order of the Board of Directors.

FRANK THOMSON,  
President.

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<b>Roanoke &amp; Southern Railway Company REORGANIZATION.</b>	
<b>To the Holders of our Reorganization Certificates for Securities of the Roanoke and Southern Railway Company:</b>	
On and after <b>FEBRUARY 24, 1897</b> , we will be prepared to receive our Reorganization Certificates for conversion into securities, as provided in the plan of reorganization.	
The new bonds are for \$500 and \$1,000 each, and the shares are for \$100 each. Arrangements have been made with the Reorganization Committee whereby holders of certificates entitled to fractions of a bond or of a share may sell such fractions or buy such amounts as may be necessary to entitle them to an entire bond or an entire share, the price of fractions being fixed by the Committee from time to time, according to quotations on the Exchange.	
<b>MERCANTILE TRUST &amp; DEPOSIT CO. OF BALTIMORE.</b>	
JOHN GILL, Presid nt.	

J. WM. MIDDENDORF, Members Baltimore Stock Exchange. W. B. OLIVER.  
**MIDDENDORF, OLIVER & CO.**  
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Stocks and Bonds Bought and Sold on Commission. Special attention given to Municipal and other Investment Loans. Dealers in Foreign Exchange. Drafts on Europe and Letters of Credit furnished.

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**JOHN L. WILLIAMS & SONS,  
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**MUNICIPAL BONDS A SPECIALTY.**  
Correspondence Invited.

**O. W. CLAPP & CO., Inc.**  
**Brokers and Commission Merchants,**  
No. 56 New St., NEW YORK;  
SOLICIT AND EXECUTE ORDERS ON  
New York Stock Exchange.  
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Unsurpassed Private Wire Facilities to New  
York, Chicago and Western Exchanges.  
Cable Address, OZRO.

Market Letters to applicants.  
CLAPP'S SOUVENIR TO CUSTOMERS.

#### Mercantile Trust & Deposit Co.

OF BALTIMORE.

Paid-up Capital, \$1,000,000.  
Surplus, \$1,000,000.

DEPOSITS RECEIVED

On which interest is allowed, governed by current rates obtainable

TRUSTEES AND ADMINISTRATORS.

This company is a *Legal Depository* for funds in the hands of Trustees or Administrators, and allows interest on same pending distribution.

Authorized to act as Executor, Administrator, Guardian, Receiver or Trustee.

ACTS as Trustee of Mortgages of Corporations and accepts Transfer Agency and Registry of Stocks.

Safe Deposit Boxes for Rent.

Vaults supplied for Storage of Silver Chests, etc.

JOHN GILL, of R., President.

#### SURETY BONDS OF EVERY KIND.

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OF BALTIMORE CITY.

Equitable Building, Baltimore.

Total Resources \$1,091,550.49.

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JOSHUA HORNER, First Vice-President.

JOSEPH S. MILLER, Second Vice-President.

JOHN T. STONE, Secretary-Treasurer.

GEO. N. MACKENZIE, Asst. Secretary-Treas.

Accepted by the United States Government as Sole Surety on Bonds of Distillers, Importers, Custom House, Postoffice, Internal Revenue and other Government Officials and Employees, and by all Federal and State Courts. Gives Bond for Officers of Corporations, Lodges, Societies, etc., Clerks and all other Employees.

Does not act as Executor, Administrator, Trustee, Guardian, Receiver or Committee, BUT BONDS THOSE WHO DO ACT.

#### Fidelity and Judicial Bonds of every kind Issued by

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SOLICITS YOUR PATRONAGE.

Office, CALVERT AND GERMAN STREETS.  
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Bonds furnished Officers and Employees of Mercantile Houses, Banks, Railroads, Express and Telegraph Companies, Officials of States, Cities and Counties. Becomes Surety on Bonds of Guardians, Assignees, Executors, Trustees, Replevin, Injunctions, Administrators, Receivers, Attachment, and all undertakings in Judicial Proceedings in State and United States Courts. Does not act as Executor, Administrator or Trustee. Patronage of Lawyers specially solicited and special rates given.

CAPITAL \$500,000.00

STOCKHOLDERS' LIABILITY \$500,000.00

TOTAL RESOURCES \$1,000,000.00

HON FRANK BROWN, President. Governor of Mar land from 1892 to 1896.

JO. IN R. BLAND, Vice Pres. and Gen Manager.

J. KEMP BARTLETT, JR. Second Vice-Pres.

ALEXANDER PAYSON KNAPE, Secretary.

J. BERNARD SCOTT, Treasurer.

HON. ISIDOR RAYNER, General Counsel.

MARTIN EHMAYER, Assistant Counsel.

WILLIAM B. RAYNER, Assistant Counsel.

OFFICERS.

R. E. LYON, President.

STEPHEN H. EMMENS, Vice-President.

L. L. POWELL, Secretary.

H. B. TILDEN, Treasurer.

ARCHIBALD H. TAYLOR, Gen'l Counsel.

DIRECTORS.

J. Willcox Brown, Leopold Strouse.

Wm. A. Marburg, Henry Walters.

Basil B. Gordon, H. A. Parr.

Lloyd L. Jackson, B. N. Baker.

Fred. M. Colston, Andrew D. Jones.

H. J. Bowdoin, James Bond.

Joshua Levering, Alexander Brown.

Frank Brown, Douglas H. Gordon.

W. B. Brooks, Jr., Clayton C. Hall.

W. H. Baldwin, J. D. Baker.

Fredk. W. Wood, F. S. Bangs.

F. M. Thieriot, John R. Garrett.

**MARYLAND TRUST CO.**  
Corner South and German Sts.  
**BALTIMORE.**  
CAPITAL - \$1,000,000.

A LEGAL DEPOSITORY FOR COURT AND TRUST FUNDS.

Acts as Financial Agent for States, Cities, Towns, Railroads and other Corporations. Transacts a general trust business. Lends money on approved security. Allows interest on special deposits. Acts as Trustee under Mortgages, Assignments and Deeds of Trust; as Agent for the Transfer or Registration of Stocks and Bonds, and for the payment of coupons, interest and dividends.

J. WILLCOX BROWN, PRESIDENT.

LLOYD L JACKSON, FIRST VICE-PRES.

HENRY J BOWDOIN, SECOND VICE-PRES.

J. BERNARD SCOTT, Secretary and Treasurer.

DIRECTORS.

J. Willcox Brown, Leopold Strouse.

Wm. A. Marburg, Henry Walters.

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Fredk. W. Wood, F. S. Bangs.

F. M. Thieriot, John R. Garrett.

**WOULDN'T YOU LIKE TO OWN AN INTEREST IN A GOLD MINE?**  
Suppose you write for particulars about THE BIG UNION MINING CO

This company owns and is now opening up rich gold mines in the famous Leadville Gold Belt of Colorado. The officers and stockholders of the company are not speculators but are well-known conservative business men. Here are some of them:

OFFICERS.

R. E. LYON, President.

STEPHEN H. EMMENS, Vice-President.

L. L. POWELL, Secretary.

H. B. TILDEN, Treasurer.

ARCHIBALD H. TAYLOR, Gen'l Counsel.

DIRECTORS.

B. L. Duke, the great tobacco manufacturer.

Durham, N. C.

W. T. O'BRIEN, of the American Tobacco Co., Durham, N. C.

Stephen H. Emmens, Pres. of the Mining and Industrial Exchange, New York City.

R. E. Lyon, of Baltimore, Md.

Geo. C. Schuermann, of Baltimore, Md.

L. D. Heartt, Cashier First Nat'l Bk Durham, N.C.

H. B. Tilden, of Baltimore, Md.

The stock of this company has been listed on the New York Mining and Industrial Exchange.

The office of the company is at 49 Equitable Building, Baltimore, Md.

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